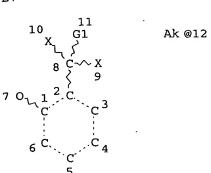
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VAR G1=H/X/12NODE ATTRIBUTES: CONNECT IS E2 RC AT CONNECT IS E3 RC AT CONNECT IS E2 RC AT CONNECT IS E2 RC AT CONNECT IS E2 RC AT CONNECT IS E1 RC AT DEFAULT MLEVEL IS ATOM

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DEFAULT ECLEVEL IS LIMITED

STEREO ATTRIBUTES: NONE

3146 SEA FILE=REGISTRY SSS FUL L7 L9 L15

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RING(S) ARE ISOLATED OR EMBEDDED

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STEREO ATTRIBUTES: NONE

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4953 SEA FILE=REGISTRY SSS FUL L15
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L18
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L24	102	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	CYANINE?/CN
L25	·464	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	FLUORESCEIN?/CN
L26	640	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	BIOTIN?/CN
L27	7	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	SULFORHODAMINE?/CN
L28	8	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	TETRAMETHYLRHODAMINE?/CN
L29	16	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	DINITROPHENYL?/CN
L30	1237	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	(L24 OR L25 OR L26 OR L27 OR
		L28	OR L29)			•
L31	147720	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	DYES+PFT, NT, RTCS/CT
L32	189010	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L30 OR L31
L33	21	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L20 AND L32

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L33 ANSWER 1 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2004:142963 HCAPLUS

DOCUMENT NUMBER:

140:199334

TITLE:

Preparation of 2,4-pyrimidinediamines as IqE and/or IgG receptor modulators for treatment of autoimmune

diseases

INVENTOR(S):

Singh, Rajinder; Argade, Ankush; Payan, Donald G.; Clough, Jeffrey; Keim, Holger; Sylvain, Catherine; Li,

Hui; Bhamidipati, Somasekhar

PATENT ASSIGNEE(S):

Rigel Pharmaceuticals, USA

SOURCE:

PCT Int. Appl., 811 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
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                         A1
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PRIORITY APPLN. INFO.:
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OTHER SOURCE(S):
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$$R^{5}$$
 $N$ 
 $L^{2}$ 
 $N$ 
 $L^{1}$ 
 $R^{2}$ 

GΙ

AB The present invention provides methods of treating or preventing autoimmune diseases with 2,4-pyrimidinediamine compds., as well as methods of treating, preventing or ameliorating symptoms associated with such diseases. Title compds. I [wherein L1 and L2 = independently a bond or a linker; R2 = (un) substituted alkyl, (hetero) cycloalkyl, or (hetero) aryl; R4 = H or R2; R5 = R6 or (un) substituted alkyl, alkenyl, or alkynyl; R6 = independently H, an electroneg. group, protected alc. or thiol, haloalkyl(oxy), halo, CN, NC, OCN, SCN, NO, NO2, N3, or (un)substituted amino, sulfamoyl(oxy), acyl, carboxy, carbamoyl, (hetero)aryl(alkyl), etc.; with provisos and exclusions; and salts, hydrates, solvates, N-oxides, and prodrugs thereof] were prepared as inhibitors of the IgE and/or IgG receptor signaling cascades that lead to the release of chemical mediators. For example, coupling of 2,4-dichloropyrimidine with 4-ethoxyaniline in EtOH provided N2, N4-bis(4-ethoxyphenyl)-2,4pyrimidinediamine (II). The latter inhibited degranulation of bone marrow derived mast cells challenged with anti-IgE and ionomycin with IC50 values of 4.5  $\mu M$  and 4.4  $\mu M$ , resp. Thus, I and their pharmaceutical compns. are useful in the treatment and prevention of diseases

characterized by, caused by, or associated with the release of chemical mediators via degranulation of mast, basophil, neutrophil, or eosinophil cells and other processes effected by activation of the IgE and/or IgG receptor signaling cascades. Specific examples of autoimmune diseases that can be treated or prevented with I and their pharmaceutical compns. include rheumatoid arthritis, systemic lupus erythematosis, and multiple sclerosis (no data).

- IC ICM A61K031-506 ICS A61K031-519
- CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
  Section cross-reference(s): 1 63

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		-reference(s):	1, 63		
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(IgE and/or IgG receptor modulator; preparation of pyrimidinediamines as IgE and/or IgG receptor modulators for treatment of autoimmune diseases)

IT 51-06-9 51-21-8, 5-Fluorouracil 51-67-2, Tyramine 54-20-6,

55-81-2, 2-(4-Methoxyphenyl)ethylamine 5-Trifluoromethyluracil 61-54-1, 56-41-7, L-Alanine, reactions 58-85-5, D-(+)-Biotin 64-04-0, 2-Aminoethylbenzene 65-49-6, 4-Amino-2-. Tryptamine hydroxybenzoic acid 67-64-1, Acetone, reactions 75-31-0, 77-92-9, Citric acid, reactions Isopropylamine, reactions 78-96-6, 2-Hydroxypropylamine 88-19-7 89-57-6, 5-Amino-2-hydroxybenzoic acid 90-41-5, 2-Phenylaniline 91-00-9, 1,1-Diphenylmethylamine 95-76-1, 3,4-Dichloroaniline 95-80-7 96-32-2, Methyl bromoacetate 96-97-9, 2-Hydroxy-5-nitrobenzoic acid 98-16-8, 3-Trifluoromethylaniline 98-80-6, Phenylboronic acid 99-03-6, 3-Methylcarbonylaniline 99-05-8, 99-09-2, 3-Nitroaniline 99-53-6 3-Aminobenzoic acid 99-55-8, 2-Methyl-5-nitroaniline 99-57-0, 2-Amino-4-nitrophenol 99-59-2, 2-Methoxy-5-nitroaniline 99-88-7, 4-Isopropylaniline 99-98-9 100-02-7, 4-Nitrophenol, reactions 100-15-2, N-Methyl-4-nitroaniline 102-50-1, 4-Methoxy-2-methylaniline 103-71-9, Phenyl isocyanate, reactions 104-78-9, 3-(Diethylamino)propylamine 4-Methoxyaniline 105-36-2, Ethyl bromoacetate 106-47-8, 4-Chloroaniline, reactions 106-49-0, 4-Methylaniline, reactions 106-50-3, 1,4-Diaminobenzene, reactions 107-10-8, n-Propylamine, 107-11-9, Allylamine 108-42-9, 3-Chloroaniline reactions 108-45-2, 108-91-8, Cyclohexylamine, reactions 3-Aminoaniline, reactions 109-01-3, N-Methylpiperazine 109-73-9, n-Butylamine, reactions 109-76-2, 1,3-Diaminopropane 109-81-9 109-83-1, N-Methyl-N-2-hydroxyethylamine 109-85-3, 2-Methoxyethylamine 109-90-0, Ethyl 110-15-6, Succinic acid, reactions 110-16-7, Maleic acid, isocyanate 110-17-8, Fumaric acid, reactions 110-85-0, Piperazine, reactions reactions 110-89-4, Piperidine, reactions 110-91-8, Morpholine, 111-42-2, reactions 116-09-6 119-32-4, reactions 4-Methyl-3-nitroaniline 121-90-4, 3-Nitrobenzoyl chloride 122-80-5, 4-Acetamidoaniline 123-30-8, 4-Hydroxyaniline 123-75-1, Pyrrolidine, 124-68-5, 2-Amino-2-methylpropanol reactions 135-95-5, 3-Hydroxymethyl-4-methoxyaniline 136-17-4 139-59-3, 4-Phenoxyaniline 141-86-6, 2,6-Diaminopyridine 150-13-0, 4-Aminobenzoic acid 4-Ethoxyaniline 156-87-6, 3-Hydroxypropylamine 320-51-4, 4-Chloro-3-trifluoromethylaniline 349-55-3, 3-Methoxy-5trifluoromethylaniline 364-76-1, 4-Fluoro-3-nitroaniline 367-21-5, 3-Chloro-4-fluoroaniline 368-53-6 369-36-8, 2-Fluoro-5-nitroaniline 369-68-6, 3-(Trifluoromethylthio)aniline 371-40-4, 4-Fluoroaniline io)aniline 372-19-0, 3-Fluoroaniline 399-95-1, 2-Fluoro-4-hydroxyaniline 372-16-7, 4-(Trifluoromethylthio)aniline 372-39-4, 3,5-Difluoroaniline 399-96-2, 3-Fluoro-4-hydroxyaniline 403-40-7, 4-Fluoro- $\alpha$ -452-69-7, 4-Fluoro-3-methylaniline methylbenzylamine 452-84-6, 454-67-1, 3-Amino-5-fluorobenzotrifluoride 2-Fluoro-5-methylaniline 455-14-1, 4-Trifluoromethylaniline 459-73-4, Ethyl 2-aminoacetate 461-82-5, 4-Trifluoromethoxyaniline 462-08-8, 3-Aminopyridine 492-41-1, (1R,2S)-(-)-Norephedrine 501-53-1, Benzyl chloroformate 505-66-8, Homopiperazine 513-37-1, 1-Chloro-2-methylpropene 534-03-2, 501-53-1, Benzyl chloroformate 2-Amino-1,3-propanediol 536-90-3, 3-Methoxyaniline 539-74-2, Ethyl 3-bromopropionate 540-51-2, 1-Bromo-2-hydroxyethane 554-84-7, 3-Nitrophenol 580-15-4, 6-Aminoquinoline 582-33-2, 589-16-2, 4-Ethylaniline 3-Ethoxycarbonylaniline 591-27-5, 3-Hydroxyaniline 593-51-1, Methylamine hydrochloride 600-00-0 611-08-5, 5-Nitrouracil 616-30-8, 3-Amino-1,2-propanediol 617-89-0. Furfurylamine 619-08-9, 2-Chloro-4-nitrophenol 621-33-0, 623-04-1, 4-Aminobenzyl alcohol 3-Ethoxyaniline 623-33-6, Glycine ethylester hydrochloride 626-43-7, 3,5-Dichloroaniline 634-93-5, 2,4,6-Trichloroaniline 635-21-2, 2-Carboxy-4-chloroaniline 4-Chloro-3-nitroaniline 695-34-1, 2-Amino-4-methylpyridine 720-01-4 765-30-0, Cyclopropylamine 765-39-9, 1-Aminopyrrole 769-92-6,

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873-74-5, 4-Aminobenzonitrile 1009-36-5,
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4-Chloro-3-methoxynitrobenzene
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1080-06-4, L-Tyrosine methyl ester 1118-68-9, N,N-Dimethylglycine
1193-21-1, 4,6-Dichloropyrimidine
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1476-23-9, Allyl isocyanate
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3-Trifluoromethoxyaniline
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5-Methyl-2-aminopyridine
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4-Chlorophenylboronic acid
1780-31-0, 2,4-Dichloro-5-methylpyrimidine
                                           1780-40-1,
                               1795-48-8, Isopropyl isocyanate
2,4,5,6-Tetrachloropyrimidine
1798-11-4, 4-Nitrophenoxyacetic acid
                                     1822-94-2, 5-(Chloromethyl)-3-
                        1824-81-3, 2-Amino-6-methylpyridine
phenyl-1,2,4-oxadiazole
3-Aminobenzyl alcohol
                       1949-55-9
                                  2038-03-1, 4-Morpholineethanamine
2106-50-5, 2-Chloro-4-fluoronitrobenzene 2144-37-8, Methyl
5-(chloromethyl)-2-furoate
                                       2237-30-1, 3-Aminobenzonitrile
                            2216-51-5
                            2393-17-1, 3-(p-Aminophenyl)propionic acid
2243-47-2, 3-Phenylaniline
2393-23-9, 4-Methoxybenzylamine
                                 2423-71-4, 2,6-Dimethyl-4-nitrophenol
2516-34-9, Cyclobutylamine
                            2516-47-4, Cyclopropylmethylamine
                                                                2524-67-6
2597-56-0, 2-Methoxy-4-nitrobenzoic acid
                                         2620-50-0, Piperonylamine
           2666-93-5, Leucine methyl ester
2627-86-3
                                             2735-04-8,
2,4-Dimethoxyaniline
                      2743-60-4, L-Leucine ethyl ester
                                                         2835-68-9
2835-78-1, 3-Phenylcarbonylaniline
                                   2835-95-2, 3-Hydroxy-4-methylaniline
2835-96-3, 4-Hydroxy-3-methylaniline
                                      2836-04-6, 3-(Dimethylamino)aniline
          3081-24-1
                      3096-69-3, 2,3-Dimethyl-4-hydroxyaniline
3096-71-7, 2,5-Dimethyl-4-hydroxyaniline
                                          3182-93-2, L-Phenylalanine
ethyl ester hydrochloride
                           3343-28-0, N-Phthaloyl-DL-glutamic anhydride
3544-25-0, 4-Cyanomethylaniline
                                 3665-80-3, N-Ethyl-4-nitroaniline
3676-85-5, 4-Aminophthalimide
                               3731-51-9, 2-Pyridylmethylamine
3731-52-0, 3-Pyridylmethylamine 3764-01-0, 2,4,6-Trichloropyrimidine
3863-11-4, 3,4-Difluoroaniline
                                3886-69-9
                                            3934-20-1,
                        3964-52-1, 3-Chloro-4-hydroxyaniline
2,4-Dichloropyrimidine
                                                               4152-09-4,
N-Benzyl-1,2-diaminoethane
                            4344-55-2, 4-Butoxyaniline
                                                         4403-70-7,
                    4425-56-3, 5-Cyanouracil
3-Aminobenzylamine
                                               4442-59-5,
2,3-Dihydro-1,4-benzodioxin-2-ylmethylamine
                                             4461-30-7
                                                         4487-59-6,
2-Bromo-5-nitropyridine
                        4543-47-9, 3-Furanmethanamine
                                                         4553-21-3
                                  5061-21-2
4747-71-1, Cyclopentyl isocyanate
                                               5071-96-5,
3-Methoxybenzylamine
                      5131-58-8
                                  5192-03-0, 5-Aminoindole
5292-43-3, tert-Butyl bromoacetate
                                    5318-27-4, 6-Aminoindole
3-Chloro-4-methoxyaniline
                                       5369-16-4, 3-Isopropylaniline
                           5350-93-6
5369-19-7, 3-tert-Butylaniline
                                5401-94-5
                                            5428-54-6,
2-Methyl-5-nitrophenol 5438-70-0, Ethyl 4-aminophenyl acetate
5445-26-1, Ethyl 4-nitrophenylacetate 5683-33-0* 5862-77-1,
                        5930-28-9, 3,5-Dichloro-4-hydroxyaniline
3-Amino-4-ethoxyaniline
5978-75-6, 9-Aminofluorene hydrochloride
                                          6264-67-1
                                                      6269-89-2,
1-(4-Nitrophenyl)piperazine
                                         6315-89-5, 3,4-Dimethoxyaniline
                             6299-85-0
6358-64-1, 2,5-Dimethoxy-4-chloroaniline
                                          6421-88-1 6628-77-9,
3-Amino-6-methoxypyridine 6967-12-0, 6-Aminoindazole 7568-93-6,
                                     7647-01-0, Hydrochloric acid,
                         7597-18-4
2-Amino-1-phenylethanol
           7664-66-6, 4-Isopropoxyaniline
reactions
                                            10242-12-3,
5-Nitro-2-benzofurancarboxylic acid 10272-07-8, 3,5-Dimethoxyaniline
13331-23-2, Furan-2-boronic acid 13871-68-6, 4-Acetoxyaniline
14268-66-7, 3,4-Methylenedioxyaniline
                                       14415-44-2, 6-Aminocoumarin
RL: RCT (Reactant); RACT (Reactant or reagent)
   (preparation of pyrimidinediamines as IgE and/or IgG receptor modulators for
   treatment of autoimmune diseases)
14576-22-8
            16154-69-1, 4-(4-Benzylpiperazin-1-yl)aniline
                                                            16452-01-0,
3-Methoxy-4-methylaniline
                           16642-79-8, 3-(p-Nitrophenyl)propionic acid
16732-57-3
           17413-10-4 17431-03-7, L-Valine ethyl ester
                                                           17742-69-7,
3,5-Dichloro-4-methoxynitrobenzene 19293-62-0
                                                19335-11-6,
```

IT

19617-43-7, Ethoxycarbonyl isocyanate 20348-09-8, 5-Aminoindazole 2H-Pyrido[3,2-b]-1,4-oxazin-3(4H)-one 20439-47-8, (R,R)-1,2-20734-67-2, 5-Aminobenzene-1,3-diol Diaminocyclohexane 21169-65-3 22013-33-8, 3,4-Ethylenedioxyaniline 21443-96-9, 7-Aminoindazole 22038-86-4, (R)-(+)-1-(4-Methoxyphenyl)ethylamine 22235-25-2, 3-Methoxycarbonyl-5-trifluoromethylaniline 24313-88-0, 24358-62-1, 1-(4-Bromophenyl)ethylamine 3,4,5-Trimethoxyaniline 24424-99-5, Di-tert-butyl dicarbonate 25170-72-3 26215-14-5 26682-99-5, Phenylglycine methyl ester 27906-24-7 28020-37-3, 28485-17-8, 3-Amino-2,6-dimethoxypyridine 28059-69-0 5-Ethoxycarbonyluracil 28942-84-9 29263-94-3, Diethyl 2-bromo-2-methylmalonate 30418-59-8, 3-Aminophenylboronic acid 30734-81-7 30866-24-1 31329-64-3 33311-29-4 33786-89-9, 3-Amino-5-chloroaniline 33901-46-1 36082-50-5, 5-Bromo-2,4dichloropyrimidine 36946-70-0, 2-Aminoindole 37045-73-1, 38560-96-2, 4-Chloro-3,5-3-Methylsulfonylaminoaniline dimethylnitrobenzene 38910-17-7 39811-17-1, 2-Methoxy-5-phenylaniline 39905-57-2, 4-n-Hexyloxyaniline 40353-34-2, 7-Nitro-1-tetralone 40615-04-1, Benzo[b] thiophene-3-methanamine 41402-58-8 3-Isopropoxyaniline 41851-59-6, (S)-(-)-1-(4-Methoxyphenyl)ethylamine 42758-84-9, 3-Acetoxyaniline 42923-79-5 42933-43-7, 5-Amino-2,3-dihydrobenzofuran 42961-88-6 50541-93-0, N-Benzyl-4-aminopiperidine 50593-24-3 50868-72-9, 5-Methoxy-2methylaniline 50963-77-4 52481-41-1 52547-48-5 52913-11-8 53222-92-7 53250-82-1 54368-61-5 54962-75-3, 3-Bromo-5trifluoromethylaniline 55411-44-4, 4-Amino-2-chloro-6-methylphenol 55745-74-9 56607-76-2 56813-48-0 56932-44-6 56970-26-4, 4-Methoxy-3-phenylaniline 57319-65-0 57946-65-3 58754-71-5, 4-(2,3-Dihydroxypropoxy)aniline 59404-86-3 59954-04-0, Methyl 62802-42-0, 2-Chloro-5-4-aminophenoxyacetate 62345-76-0 fluoropyrimidine 63503-60-6, 3-Chlorophenylboronic acid 3-Chloro-4-trifluoromethoxyaniline 65934-74-9, 4-Methyl-3trifluoromethylaniline 66211-46-9, (R)-3-Amino-1,2-propanediol 67952-93-6, 3-Chloro-4-methylbenzylamine 68621-88-5, 3-tert-Butoxycarbonylaminoaniline 69411-68-3, 3-Fluoro-4trifluoromethylaniline 69959-88-2 70264-94-7, Methyl (4-bromomethyl)-3-methoxybenzoate 70338-47-5, 4-Benzyloxy-3-trifluoromethylaniline 71026-66-9, 4-tert-Butoxycarbonylaminoaniline 71056-61-6 71597-85-8, 4-Hydroxyphenylboronic acid 73246-45-4, Methyl (S)-(-)-2-chloropropionate 73732-51-1, 3-(Tetrazol-5-yl)aniline 76445-65-3, 4-Aminocyclohexanol 77287-29-7, Methyl (R)-(+)-2-chloropropionate 80938-67-6 hydrochloride 88327-91-7, 4-(Tetrahydro-(1H)-pyrrol-1-87029-84-3 81720-19-6 ylsulfonyl)aniline 89260-46-8 89586-07-2 89976-75-0 92028-21-2 94839-07-3, 3,4-Methylenedioxyphenylboronic acid 94838-55-8 96100-12-8 98280-30-9 99768-12-4, (4-Methoxycarbonylphenyl)boronic acid 100800-40-6, 4-[[3-(N-Morpholino)propyl]oxy]aniline 103361-43-9 105807-84-9, 6-Amino-2,2-dimethyl-4H-benzo[1,4]oxazin-3-one 108761-82-6 126874-73-5 134855-87-1, 1-(4-Hydroxyphenyl)ethylamine 110178-35-3 141068-81-7 143071-39-0, 2-(2-Hydroxyethoxy)-5-136544-55-3 nitropyridine 157837-31-5, 3-(1,3-Oxazol-5-yl)aniline 158196-47-5 167756-90-3, 3-((N-tert-Butoxycarbonyl-N-167027-30-7 methylamino) methyl) aniline 169286-84-4 173735-84-7 175136-34-2 175201-62-4 175205-10-4 180258-45-1 175137-27-6 189683-22-5 194025-85-9, 3-Methylaminocarbonyl-4-methoxyaniline 195046-11-8 203664-68-0 203664-71-5 205117-39-1 205672-25-9 206761-76-4 209899-47-8, 3-[(N-tert-Butoxycarbonyl)aminomethyl]-4-methylaniline 220844-82-6 226571-61-5 280581-65-9 306934-74-7 306934-85-0 306937-22-4, Ethyl 1-(3-aminobenzyl)piperidine-4-carboxylate 307989-43-1

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337463-65-7
                   439095-26-8
                                  503166-47-0, 3-(N-Morpholinomethyl)-4-
                      575472-85-4
                                     575472-93-4, 2H-1,4-Benzoxazin-6-amine
     methoxyaniline
     575472-98-9
                   575473-25-5, 5-Amino-1-methylindazoline
                                                               575473-51-7
     575473-75-5
                   575473-89-1
                                  575473-93-7
                                                 575473-95-9
                                                               575473-97-1
     575474-01-0
                   575474-14-5, 4H-Imidazo[2,1-c][1,4]benzoxazin-8-amine
     575474-23-6
                   575474-31-6
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                                  575478-14-7
                                                 575478-36-3
                                                               575478-38-5
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                                  575478-54-5
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                                                 575478-83-0
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                   575479-26-4
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                                                 575479-34-4
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                   575479-84-4
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                                                 575479-93-5
                                                               575479-96-8
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                                  575480-04-5
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                                                               575480-38-5
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                   575480-51-2
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                                                 575480-83-0
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                                  575481-44-6
                                                 575481-48-0
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     575481-61-7
                                  575481-69-5
                                                 575481-71-9
                                                               575481-73-1
     575481-75-3
                   575481-77-5
                                  575481-86-6
                                                 575481-92-4
                                                               575481-94-6
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                   575482-16-5
                                  575482-18-7
                                                               575482-50-7
                                                 575482-40-5
     575482-55-2
                   575482-60-9
                                  575482-69-8
                                                 575482-84-7
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of pyrimidinediamines as IgE and/or IgG receptor modulators for
        treatment of autoimmune diseases)
IT
     575482-89-2
                   575482-92-7
                                  575482-94-9
                                                575482-96-1 575482-98-3
     575483-00-0
                                  575483-08-8
                                                575483-11-3
                   575483-03-3
                                                               575483-19-1
     575483-62-4
                   575483-70-4
                                  575483-77-1
                                                575483-89-5
                                                               575483-91-9
                   575484-02-5
     575484-00-3
                                  575484-23-0
                                                575484-55-8
                                                               575484-63-8
                   575484-66-1
     575484-64-9
                                  575484-71-8
                                                575484-74-1
                                                               575484-83-2
     575485-07-3
                   575485~10-8
                                  575485-12-0
                                                               575485-38-0
                                                575485-27-7
     575485-43-7
                   575485-61-9
                                  575485-66-4
                                                               575486-31-6
                                                575486-13-4
                   575486-37-2
     575486-34-9
                                  575486-42-9
                                                575486-45-2
                                                               575487-16-0
                   662228-35-5
     662228-28-6
                                  662245-28-5
                                                 662245-63-8
                                                               662245-76-3
     662245-79-6
                   662246-48-2
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of pyrimidinediamines as IgE and/or IgG receptor modulators for
        treatment of autoimmune diseases)
IT
     575476-23-2P 575482-97-2P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (IgE and/or IgG receptor modulator; preparation of pyrimidinediamines as IgE
        and/or IgG receptor modulators for treatment of autoimmune diseases)
RN
     575476-23-2 HCAPLUS
CN
     2,4-Pyrimidinediamine, 5-fluoro-N,N'-bis[4-(phenylmethoxy)-3-
     (trifluoromethyl)phenyl]- (9CI)
                                      (CA INDEX NAME)
```

RN 575482-97-2 HCAPLUS

CN Acetamide, 2-[3-[[5-fluoro-4-[[4-methoxy-3-(trifluoromethyl)phenyl]amino]-2-pyrimidinyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O \\ \parallel \\ MeNH-C-CH_2-O \\ \hline \\ NH \\ \hline \\ NH \\ \hline \\ NH \\ \hline \\ OMe \\ \\ \end{array}$$

IT 58-85-5, D-(+)-Biotin 70338-47-5, 4-Benzyloxy-3-

trifluoromethylaniline 575482-98-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of pyrimidinediamines as IgE and/or IgG receptor modulators for treatment of autoimmune diseases)

RN 58-85-5 HCAPLUS

CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 70338-47-5 HCAPLUS

CN Benzenamine, 4-(phenylmethoxy)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 575482-98-3 HCAPLUS

CN 4-Pyrimidinamine, 2-chloro-5-fluoro-N-[4-methoxy-3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 2 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:950982 HCAPLUS

DOCUMENT NUMBER:

140:16736

TITLE:

Preparation of diarylurea derivatives useful for the

treatment of protein kinase dependent diseases Floersheimer, Andreas; Furet, Pascal; Manley, Paul

William; Bold, Guido; Boss, Eugen; Guagnano, Vito;

Vaupel, Andrea

PATENT ASSIGNEE(S):

Novartis A.-G., Switz.; Novartis Pharma G.m.b.H.

SOURCE:

PCT Int. Appl., 170 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

INVENTOR(S):

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.						KIN	D :	DATE			APPL	ICAT		DATE				
-																		
WO 2003099771					A2 20031204				1	WO 2	003-1	20030528						
W	WO 2003099771			<b>A</b> 3		20040401												
		W :	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
			HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LT,	LU,
								MX,										
			SE,	SG,	SK,	ТJ,	TM,	TN,	TR,	TT,	UA,	US,	UZ,	VC,	VN,	YU,	ZA,	ZW
		RW:	AM,	ΑZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,
			DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,
			SI,	SK,	TR													

PRIORITY APPLN. INFO.:

GB 2002-12413 A 20020529 GB 2003-5684 A 20030312 GB 2003-9219 A 20030423

OTHER SOURCE(S):

MARPAT 140:16736

GI

$$(R^4)_{q} \xrightarrow{A} (Y^1)_{m} \xrightarrow{(CH_2)_{p}} X \xrightarrow{N}_{N} G^{Z}$$

The invention relates to the use of diaryl urea derivs. {I; G is not AB present and Z = a radical of the formula Q; A = CH, N, N→O; A1 = N, N→O, with the proviso that not more than one of A and A1 can be  $N \rightarrow 0$ ; n = 1, 2; m = 0-2; p = 0, 2, 3; q = 0-5; X = (un) substituted NH if p = 0; or if p is 2 or 3, X = nitrogen which together with (CH2)p and the bonds represented in dotted (interrupted) lines (including the atoms to which they are bound) forms a ring, or X = CHK (wherein K = H or lower alkyl) and p = 0, with the proviso that the bonds represented in dotted lines, if p = 0, are absent; Y1 = 0, S, CH2; Y2 = 0, S, NH; with the proviso that (Y1)n-(Y2)m does not include O-O, S-S, NH-O, NH-S or S-O groups; R1, R2, R3, R5 = independently H or an inorg. or organic moiety or any two of them together form a lower alkylenedioxy bridge bound via the oxygen atoms, and the remaining one of these moieties is hydrogen or an inorg. or organic moiety; R4 (if present, i.e., if q is not zero) is an inorg. or organic moiety] or tautomers thereof or pharmaceutically acceptable salts thereof in the treatment of protein kinase dependent diseases or for the manufacture of pharmaceutical compns. for use in the treatment of said diseases, especially a proliferative disease depending on any one or more of

the

following (tyrosine) protein kinases such as ras, Abl, VEGF-receptor tyrosine kinase, Flt3, and/or Bcr-Abl activity. Also disclosed are the use of the compds. I for the manufacture of pharmaceutical compns. for use in the treatment of said diseases, methods of use of the compds. I in the treatment of said diseases, pharmaceutical prepns. comprising the compds. I for the treatment of said diseases, processes for the manufacture of the compds. I, the use or methods of use of the compds. I as mentioned above, and/or the compds. I for use in the treatment of the animal or human body. For example, N-(4-(pyridin-4-yloxy)phenyl)-N'-(4-2,2,2-trifluoroethoxy-3trifluoromethylphenyl)urea and N-[4-[6-(4-hydroxyphenylamino)pyrimidin-4yl]phenyl]-N'-(4-2,2,2-trifluoroethoxy-3-trifluoromethylphenyl)urea at 10 μM inhibited gene c-Abl protein kinase by 98%, Kdr receptor tyrosine kinase by 100 and 96%, resp., and Flt3 receptor tyrosine kinase by 100%.

IC ICM C07C275-00

28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) Section cross-reference(s): 1, 7, 27, 63

**393-15-7P**, 4-Methoxy-3-trifluoromethylphenylamine 4,6-Difluoropyrimidine 15862-01-8P, 2-Methoxy-4-nitrobiphenyl 20566-90-9P, 3-Nitro-N, N-dimethyl-5-trifluoromethylbenzamide 22227-42-5P, (Piperidin-1-yl)(3-nitro-5-trifluoromethylphenyl)methanone 56970-24-2P, 2-Methoxybiphenyl-4-ylamine 58609-19-1P 4-Piperidin-1-yl-3-trifluoromethylphenylamine 102877-78-1P,

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4-(Pyridin-4-yloxy)phenylamine 105130-28-7P, 4-(6-Chloropyrimidin-4-
                             105298-89-3P 105350-42-3P
yloxy)aniline
               105296-03-5P
                                                             118450-89-8P,
1-(2-Methoxy-4-nitrophenyl)piperidine 124041-03-8P, 4-Chloro-6-(4-
nitrophenoxy) pyrimidine
                        168050-39-3P, (4-Aminobenzyl)carbamic acid
benzyl ester
               186090-34-6P
                              252918-98-2P
                                             260783-12-8P,
(4-Chloropyridin-2-yl)pyrrolidin-1-ylmethanone
                                                 330796-48-0P,
4-(4-Methylpiperazin-1-yl)-3-trifluoromethylphenylamine
                                                         417724-25-5P,
6-(4-Aminophenoxy)pyrimidin-4-ylamine 630125-30-3P, Methyl[4-(pyridin-4-
yloxy)phenyl]amine 630125-32-5P, N-(4-Ethylphenyl)-2-(4-
hydroxyphenyl)acetamide
                         630125-33-6P 630125-34-7P,
5-(Pyridin-4-yloxy)-2,3-dihydroindole
                                        630125-35-8P, 6-(Pyridin-4-yloxy)-
1,2,3,4-tetrahydroquinoline
                             630125-36-9P, 6-(Pyridin-4-yloxy)quinoline
630125-37-0P
               630125-38-1P, [6-(4-Aminophenoxy)pyrimidin-4-yl] [4-(tert-
butyldimethylsilyloxy)phenyl]amine 630125-39-2P, [4-(tert-
Butyldimethylsilyloxy)phenyl][6-(4-nitrophenoxy)pyrimidin-4-yl]amine
630125-40-5P, 4-[6-(4-Nitrophenoxy)pyrimidin-4-ylamino]phenol
630125-41-6P, 3-Chloro-4-(pyridin-4-yloxy)phenylamine 630125-43-8P,
[6-(4-Aminophenoxy)pyrimidin-4-yl](4-methoxyphenyl)amine
                                                           630125-44-9P,
(4-Methoxyphenyl) [6-(4-nitrophenoxy)pyrimidin-4-yl]amine
                                                           630125-45-0P
630125-46-1P
               630125-47-2P
                              630125-48-3P
                                             630125-50-7P
                                                            630125-51-8P,
[4-(Benzyloxycarbonylaminomethyl)phenyl]carbamic acid tert-butyl ester
630125-52-9P, 4-(4-Ethylpiperazin-1-yl)-3-methoxyphenylamine
630125-53-0P, 1-Ethyl-4-(2-methoxy-4-nitrophenyl)piperazine
630125-54-1P, 3-Methoxy-4-(piperidin-1-ylmethyl)phenylamine
630125-55-2P, 1-(2-Methoxy-4-nitrobenzyl)piperidine 630125-56-3P,
(2-Methoxy-4-nitrophenyl)piperidin-1-ylmethanone
                                                   630125-57-4P,
4-(4-Ethylaminopyrimidin-6-yloxy) aniline
                                           630125-58-5P,
4-(4-Aminophenoxy)-2-methoxypyridine 630125-59-6P, 2-Methoxy-4-(4-
nitrophenoxy)pyridine
                        630125-60-9P, 1-Methyl-4-(4-nitrophenoxy)-1H-
pyridin-2-one 630125-61-0P, 4-(4-Nitrophenoxy)-1H-pyridin-2-one
630125-62-1P, 3-(4-Aminophenoxy)-1H-pyridin-6-one 630125-63-2P,
3-(4-Nitrophenoxy)-1H-pyridin-6-one
                                     630125-64-3P, 4-(6-Methoxypyridin-3-
ylmethyl)phenylamine
                       630125-65-4P
                                      630125-66-5P
                                                    630125-67-6P.
[4-(4-Aminophenoxy)pyridin-2-yl]pyrrolidin-1-ylmethanone
                                                           630125-68-7P
630125-69-8P, 4-(4-Aminophenoxy)pyridine-2-carbonitrile
                                                          63'0125-70-1P,
4-(2-Chloropyridin-4-yloxy)phenylamine
                                         630125-71-2P,
4-(2-Trifluoromethylpyridin-4-yloxy)phenylamine
                                                  630125-72-3P,
4-(4-Nitrophenoxy)-2-trifluoromethylpyridine
                                               630125-73-4P,
4-(6-Fluoropyrimidin-4-yloxy)phenylamine
                                          630125-74-5P,
4-(6-Trifluoromethylpyrimidin-4-yloxy)phenylamine
                                                    630125-75-6P,
[4-(6-Chloropyrimidin-4-ylmethyl)phenyl]carbamic acid tert-butyl ester
630125-76-7P, 4-(6-Chloropyrimidin-4-ylmethyl)phenylamine
                                                          630125-77-8P,
[4-(6-Hydroxypyrimidin-4-ylmethyl)phenyl]carbamic acid tert-butyl ester
630125-78-9P, [4-(6-Hydroxy-2-mercaptopyrimidin-4-ylmethyl)phenyl]carbamic
acid tert-butyl ester
                      630125-79-0P
                                      630125-80-3P, [6-(4-
Aminobenzyl)pyrimidin-4-yl]methylamine
                                         630125-81-4P,
4-[2-(1H-Tetrazol-5-yl)pyridin-4-yloxy]phenylamine
                                                   630125-82-5P,
3-Trifluoromethyl-4-(piperidin-1-ylmethyl)phenylamine
                                                      630125-83-6P,
2,2,2-Trifluoro-N-(4-piperidin-1-ylmethyl-3-trifluoromethylphenyl)acetamid
    630125-84-7P
                   630125-85-8P
                                 630125-86-9P, 3-Methoxy-4-(4-
methylpiperazin-1-ylmethyl)phenylamine
                                         630125-87-0P,
3-Methoxy-4-(4-methylpiperazin-1-ylmethyl)nitrobenzene
                                                         630125-88-1P,
(4-Methylpiperazin-1-yl) (4-nitro-2-methoxyphenyl) methanone
                                                            630125-89-2P,
3-Trifluoromethyl-5-(piperidin-1-ylmethyl)phenylamine 630125-90-5P
630125-91-6P, 3-Trifluoromethyl-4-(4-ethylpiperazin-1-ylmethyl)phenylamine
              630125-93-8P, 3-(4-Ethylpiperazin-1-ylmethyl)-5-
630125-92-7P
trifluoromethylphenylamine
                            630125-94-9P, (3-Amino-5-
trifluoromethylphenyl) (4-ethylpiperazin-1-yl) methanone
                                                        630125-95-0P,
(3-Nitro-5-trifluoromethylphenyl) (4-ethylpiperazin-1-yl) methanone
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630125-96-1P, 4-Chloro-6-(4-isocyanatophenoxy)pyrimidine
                                                                 630125-97-2P
     630125-98-3P, 3-Amino-N, N-dimethyl-5-trifluoromethylbenzamide
     630125-99-4P, [6-(4-Aminophenoxy)pyrimidin-4-yl]methylamine
     630126-00-0P, 3-Pyridin-2-yl-5-trifluoromethylphenylamine
                                                                  630126-01-1P,
     Methyl [4-(4-nitrophenoxy) pyrimidin-2-yl] amine
                                                     630126-02-2P,
                                             630126-03-3P, 4-(2-Methylimidazol-
     2-Chloro-4-(4-nitrophenoxy)pyrimidine
                                          630126-05-5P, 2-Methyl-1-(4-nitro-2-
     1-yl)-3-trifluoromethylphenylamine
     trifluoromethylphenyl)-1H-imidazole
                                           630126-07-7P, [6-(4-Amino-2-
     methylphenoxy)pyrimidin-4-yl]methylamine
                                                630126-09-9P,
     [3-Methyl-4-(6-methylaminopyrimidin-4-yloxy)phenyl]carbamic acid benzyl
             630126-11-3P, [4-(6-Chloropyrimidin-4-yloxy)-3-
     methylphenyl]carbamic acid benzyl ester
                                               630126-12-4P,
     (4-Hydroxy-3-methylphenyl)carbamic acid benzyl ester
                                                            630126-13-5P,
                                            630126-14-6P, [4-(6-Aminopyrimidin-
     6-(4-Aminobenzyl)pyrimidin-4-ylamine
     4-ylmethyl)phenyl]carbamic acid tert-butyl ester
                                                        630126-15-7P,
     [4-(6-Azidopyrimidin-4-ylmethyl)phenyl]carbamic acid tert-butyl ester
     630126-16-8P, 5-(6-Chloropyrimidin-4-yloxy)-1H-indole
                                                             630126-17-9P,
     5-(6-Chloropyrimidin-4-yloxy)-2,3-dihydro-1H-indole
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (intermediate; preparation of diarylurea derivs. useful for the treatment of
        protein kinase dependent diseases and proliferative diseases)
TT
     228400-22-4P
                    228400-61-1P
                                   228400-77-9P
                                                  630122-37-1P
                                                                  630122-38-2P
     630122-39-3P
                    630122-40-6P
                                   630122~41-7P
                                                  630122-42-8P
                                                                  630122-43-9P
                    630122-46-2P
     630122-44-0P
                                   630122-48-4P
                                                  630122-50-8P
                    630122-52-0P
     630122-51-9P
                                   630122-53-1P
                                                  630122-54-2P
                                                                  630122-55-3P
     630122-56-4P
                    630122-57-5P
                                   630122-58-6P
                                                  630122-59-7P
                                                                  630122-60-0P
     630122-61-1P
                    630122-62-2P
                                   630122-63-3P
                                                  630122-64-4P
                                                                  630122-65-5P
                    630122-67-7P 630122-68-8P
                                                630122-69-9P
     630122-66-6P
     630122-70-2P
                    630122-71-3P, N-[4-(Pyridin-4-yloxy)-3-chlorophenyl]-N'-(3-
                                  630122-72-4P, N-[4-(Pyridin-4-yloxy)-3-
     trifluoromethylphenyl)urea
     methylphenyl]-N'-(3-trifluoromethylphenyl)urea
                                                      630122-73-5P
                    630122-75-7P
                                   630122-76-8P
                                                  630122-77-9P
                                                                  630122-78-0P
     630122-74-6P
     630122-79-1P 630122-80-4P, 5-(Pyridin-4-yloxy)-2,3-dihydroindole-
     1-carboxylic acid [4-(2,2,2-trifluoroethoxy)-3-trifluoromethylphenyl]amide
     630122-81-5P
                    630122-82-6P
                                   630122-83-7P
                                                  630122-84-8P
                                                                  630122-85-9P
     630122-86-0P
                    630122-87-1P
                                   630122-88-2P
                                                  630122-89-3P
                                                                  630122-90-6P
     630122-91-7P
                    630122-92-8P
                                   630122-93-9P
                                                 630122-94-0P
                                                                  630122-95-1P
     630122-96-2P
                    630122-97-3P
                                   630122-98-4P
                                                  630122-99-5P
                                                                  630123-00-1P
    630123-01-2P
                    630123-02-3P
                                   630123-03-4P
                                                  630123-04-5P
                                                                  630123-05-6P
                    630123-07-8P
     630123-06-7P
                                   630123-08-9P
                                                                  630123-10-3P
                                                  630123-09-0P
                    630123-12-5P
                                   630123-14-7P, N-[4-(6-Chloropyrimidin-4-
     630123-11-4P
     yloxy)phenyl]-N'-(4-tert-butylphenyl)urea
                                                 630123-15-8P,
     N-[4-(6-Chloropyrimidin-4-yloxy)phenyl]-N'-(4-chloro-3-
                                  630123-16-9P, N-[4-(4-Methylaminopyrimidin-6-
     trifluoromethylphenyl)urea
     yloxy)phenyl]-N'-(4-tert-butylphenyl)urea
                                                 630123-18-1P,
     N-[4-(4-Benzylaminopyrimidin-6-yloxy)phenyl]-N'-(4-tert-butylphenyl)urea
     630123-20-5P, N-[4-(4-Aminopyrimidin-6-yloxy)phenyl]-N'-(4-chloro-3-
     trifluoromethylphenyl)urea
                                  630123-22-7P
                                                 630123-24-9P,
    N-[4-(6-Chloropyrimidin-4-yloxy)phenyl]-N'-[4-(4-ethylpiperazin-1-yl)-3-
                          630123-26-1P, N-[4-(4-Chloropyrimidin-6-yloxy)phenyl]-
     methoxyphenyl]urea
    N'-[3-methoxy-4-(piperidin-1-ylmethyl)phenyl]urea
                                                         630123-28-3P
     630123-30-7P
                    630123-32-9P
                                   630123-34-1P
                                                  630123-36-3P
                                                                  630123-38-5P
     630123-40-9P
                                   630123-43-2P
                    630123-41-0P
                                                  630123-45-4P
                                                                  630123-47-6P
     630123-49-8P
                    630123-51-2P
                                   630123-53-4P
                                                  630123-55-6P
                                                                  630123-56-7P
                    630123-59-0P
     630123-57-8P
                                   630123-61-4P
                                                  630123-63-6P
                                                                  630123-65-8P
                                   630123-70-5P
     630123-67-0P
                    630123-69-2P
                                                  630123-71-6P
                                                                  630123-72-7P
     630123-73-8P
                    630123-74-9P
                                   630123-75-0P
                                                  630123-76-1P
                                                                  630123-77-2P
     630123-78-3P
                    630123-79-4P
                                   630123-80-7P
                                                  630123-81-8P
                                                                  630123-82-9P
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630123-83-0P
               630123-84-1P
                              630123-85-2P
                                             630123-86-3P
                                                             630123-87-4P
630123-89-6P, N-[4-(6-0xo-1,6-dihydropyridin-3-ylmethyl)phenyl]-N'-(4-
methylphenyl)urea
                    630123-91-0P
                                   630123-92-1P
                                                  630123-93-2P
630123-94-3P
               630123-95-4P
                              630123-96-5P
                                             630123-97-6P
                                                             630123-98-7P
630123-99-8P
               630124-00-4P
                              630124-01-5P
                                             630124-02-6P
                                                             630124-03-7P
630124-04-8P
               630124-05-9P ·
                              630124-06-0P
                                             630124-07-1P
                                                             630124-08-2P
630124-09-3P
               630124-10-6P
                              630124-11-7P
                                             630124-12-8P
                                                             630124-13-9P
                                             630124-17-3P
630124-14-0P
               630124-15-1P
                              630124-16-2P
                                                             630124-18-4P
630124-19-5P
               630124-20-8P
                              630124-21-9P
                                             630124-22-0P
                                                             630124-23-1P
                              630124-26-4P, N-[4-(4-Chloropyrimidin-6-
630124-24-2P
               630124-25-3P
yloxy)phenyl]-N'-[3-trifluoromethyl-4-(piperidin-1-ylmethyl)phenyl]urea
630124-27-5P, N-[4-(4-Chloropyrimidin-6-yloxy)phenyl]-N'-[3-methoxy-4-(4-
methylpiperazin-1-ylmethyl)phenyl]urea 630124-28-6P,
N-[4-(4-Azidopyrimidin-6-yloxy)phenyl]-N'-[3-trifluoromethyl-4-(piperidin-
1-ylmethyl)phenyl]urea
                         630124-29-7P
                                       630124-30-0P, N-[4-(4-
Chloropyrimidin-6-yloxy)phenyl]-N'-[3-trifluoromethyl-5-(piperidin-1-
ylmethyl)phenyl]urea 630124-32-2P, N-[4-(4-Chloropyrimidin-6-
yloxy)phenyl]-N'-[3-trifluoromethyl-4-(4-ethylpiperazin-1-
ylmethyl)phenyl]urea 630124-34-4P, N-[4-(6-Chloropyrimidin-4-
yloxy)phenyl]-N'-[5-trifluoromethyl-3-[(4-ethylpiperazin-1-
yl)methyl]phenyl]urea 630124-36-6P, N-[4-(6-Chloropyrimidin-4-
yloxy)phenyl]-N'-[5-trifluoromethyl-3-(dimethylaminomethyl)phenyl]urea
               630124-38-8P
630124-37-7P
                              630124-39-9P
                                             630124-40-2P
                                                            630124-42-4P
630124-44-6P
               630124-46-8P
                              630124-48-0P
                                             630124-50-4P
                                                             630124-52-6P
630124-53-7P
               630124-54-8P
                              630124-55-9P
                                             630124-56-0P
                                                             630124-57-1P
630124-58-2P
               630124-59-3P
                              630124-60-6P
                                             630124-61-7P
                                                             630124-62-8P
630124-63-9P
               630124-64-0P
                              630124-65-1P
                                             630124-66-2P
                                                             630124-67-3P
630124-68-4P
               630124-69-5P
                              630124-70-8P
                                             630124-71-9P
                                                             630124-72-0P
               630124-74-2P
630124-73-1P
                              630124-75-3P
                                             630124-77-5P
                                                             630124-78-6P
630124-80-0P
               630124-81-1P
                              630124-82-2P
                                             630124-84-4P
630124-86-6P
               630124-88-8P
                              630124-90-2P
                                             630124-92-4P
                                                             630124-94-6P
630124-96-8P
               630124-98-0P
                              630125-12-1P
                                             630125-13-2P
                                                             630125-15-4P
               630125-20-1P
630125-16-5P
                              630125-22-3P
                                             630125-24-5P
                                                             630125-26-7P
630125-27-8P
               630125-28-9P
                              630125-29-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
   (preparation of diarylurea derivs. useful for the treatment of protein
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kinase dependent diseases and proliferative diseases) 60-35-5, Acetamide, reactions 62-56-6, Thiourea, reactions 74-88-4, Methyl iodide, reactions 74-89-5, Methylamine, reactions 75-04-7, Ethylamine, reactions 75-44-5, Phosgene 98-16-8, 3-Trifluoromethylphenylamine 98-80-6, Phenylboronic acid 100-00-5, 1-Chloro-4-nitrobenzene 100-02-7, 4-Nitrophenol, reactions 100-46-9, Benzylamine, reactions 104-94-9, p-Anisidine 109-01-3, 1-Methylpiperazine 110-89-4, Piperidine, reactions 111-95-5 123-30-8, 4-Aminophenol 123-75-1, Pyrrolidine, reactions 156-38-7, 4-Hydroxyphenylacetic acid 327-78-6, 4-Chloro-3-trifluoromethylphenyl isocyanate 328-80-3 329-01-1, 3-(Trifluoromethyl) phenyl isocyanate 367-67-9, 1-Bromo-4-nitro-2-350-46-9, 4-Fluoronitrobenzene trifluoromethylbenzene 407-25-0, Trifluoroacetic acid anhydride 501-53-1, Chloroformic acid benzyl ester 506-59-2, Dimethylamine hydrochloride 555-16-8, 4-Nitrobenzaldehyde, reactions 586-95-8, 4-Hydroxymethylpyridine 589-16-2, 4-Ethylaniline 591-27-5, 622-58-2, 4-Methylphenyl isocyanate 3-Aminophenol 626-03-9, 2,4-Dihydroxypyridine 626-61-9, 4-Chloropyridine 654-76-2, 1-Methoxy-4-nitro-2-trifluoromethylbenzene 693-98-1, 2-Methylimidazole 917-54-4, Methyllithium 1124-33-0, 4-Nitropyridine N-oxide 4,6-Dichloropyrimidine 1943-67-5, 4-tert-Butylphenyl isocyanate

IT

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1953-54-4, 5-Hydroxyindole 2597-56-0, 2-Methoxy-4-nitrobenzoic
                        2835-96-3, 4-Amino-2-methylphenol 3934-20-1, 2,4-
          Dichloropyrimidine 5154-01-8, 2,5-Dihydroxypyridine
                                                                                                                            5308-25-8.
          N-Ethylpiperazin
                                               7379-35-3, 4-Chloropyridine hydrochloride 7677-24-9,
          Trimethylsilyl cyanide 7789-23-3, Potassium fluoride
                                                                                                                            13472-85-0,
          5-Bromo-2-methoxypyridine 17997-47-6, 2-Tributylstannylpyridine
          18162-48-6, tert-Butyldimethylsilyl chloride
                                                                                                         23056-36-2,
          2-Chloro-4-nitropyridine 23138-50-3
                                                                                         24424-99-5, Di-tert-butyl
                                      24484-93-3, 4-Chloropyridine-2-carboxylic acid methyl ester
          26628-22-8, Sodium azide 27692-74-6, 4-(Pyridin-4-ylmethyl)phenylamine
          32315-10-9, Triphosgene
                                                             35019-96-6, trans-2-Phenylcyclopropyl isocyanate
          37552-81-1, 4-Chloro-6-trifluoromethylpyrimidine
                                                                                                                 54962-75-3,
          3-Amino-5-bromobenzotrifluoride
                                                                              62088-12-4
                                                                                                      65934-74-9,
          5-Amino-2-methylbenzotrifluoride 77337-82-7, 1-Bromo-2-methoxy-4-
          nitrobenzene
                                      105316-06-1, 4-Morpholin-4-yl-3-trifluoromethylphenylamine
          109903-35-7
                                      170886-13-2, 2-Trifluoromethylpyridin-4-ol
                                                                                                                                 220298-96-4,
          4-(Aminomethyl)-N-(tert-butoxycarbonyl)aniline
                                                                                                            321352-53-8,
           (R)-5-Bromoindan-2-ylamine 417724-26-6, 4-(4-Aminophenoxy)pyrimidin-2-
                              630123-88-5, N-[4-(6-Methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl]-N'-(4-methoxypyridin-3-ylmethyl)phenyl-N'-(4-methoxypyridin-3-ylmethyl)phenyl-N'-(4-methoxypyridin-3-ylmethyl)phenyl-N'-(4-methoxypyridin-3-ylmethyl)phenyl-N'-(4-methoxypyridin-3-ylmethyl)phenyl-N'-(4-methoxypyridin-3-ylmethyl)phenyl-N'-(4-methoxypyridin-3-ylmethyl)phenyl-N'-(4-methoxypyridin-3-ylmethyl)phenyl-N'-(4-methoxypyridin-3-ylmethyl)phenyl-N'-(4-methoxypyridin-3-ylmethyl-N'-(4-methoxypyridin-3-ylmethyl-N'-(4-methoxypyridin-3-ylmethyl-N'-(4-methoxypyridin-3
          methylphenyl)urea
                                                 630123-90-9 630125-31-4, Methyl[4-(pyridin-4-
          ylmethyl)phenyl]amine
                                                          630125-42-7
                                                                                       630125-49-4
          RL: RCT (Reactant); RACT (Reactant or reagent)
                (reactant; preparation of diarylurea derivs. useful for the treatment of
                protein kinase dependent diseases and proliferative diseases)
IT
          393-15-7P, 4-Methoxy-3-trifluoromethylphenylamine
          RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
           (Reactant or reagent)
                (intermediate; preparation of diarylurea derivs. useful for the treatment of
                protein kinase dependent diseases and proliferative diseases)
RN
          393-15-7 HCAPLUS
CN
          Benzenamine, 4-methoxy-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)
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RN 630122-68-8 HCAPLUS

CN Urea, N-[4-[[6-[(4-hydroxyphenyl)amino]-4-pyrimidinyl]oxy]phenyl]-N'-[4-(2,2,2-trifluoroethoxy)-3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

RN 630122-80-4 HCAPLUS

CN 1H-Indole-1-carboxamide, 2,3-dihydro-5-(4-pyridinyloxy)-N-[4-(2,2,2-trifluoroethoxy)-3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \text{CF}_3 \\ & & & \text{O} \\ & & & \text{N} \\ & & & \text{C} \\ & & & \text{N} \\ & & & \text{C} \\ & & & & \text{N} \\ \end{array}$$

RN 630124-80-0 HCAPLUS

CN Urea, N-[4-methoxy-3-(trifluoromethyl)phenyl]-N'-[4-[-[2-(methylamino)-4-pyrimidinyl]oxy]phenyl]- (9CI) (CA INDEX NAME)

IT 654-76-2, 1-Methoxy-4-nitro-2-trifluoromethylbenzene

1953-54-4, 5-Hydroxyindole

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant; preparation of diarylurea derivs. useful for the treatment of protein kinase dependent diseases and proliferative diseases)

RN 654-76-2 HCAPLUS

CN Benzene, 1-methoxy-4-nitro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 1953-54-4 HCAPLUS

CN 1H-Indol-5-ol (9CI) (CA-INDEX NAME)

L33 ANSWER 3 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:875259 HCAPLUS

DOCUMENT NUMBER:

139:364950

TITLE:

Preparation of pyrimidine derivatives as mixed

lymphocyte reaction (MLR) inhibitors

INVENTOR(S):

Tsuruoka, Hiroyuki; Kanno, Yuichi; Tatsuta, Tohru

PATENT ASSIGNEE(S):

Sankyo Company, Limited, Japan PCT Int. Appl., 420 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent Japanese

LANGUAGE:

ր. 1

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT	NO.			KIND DATE				APPL			DATE					
WO 2003	WO 2003091223					A1 20031106			WO 2	003-	JP52:	20030423				
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RW:	GH,	GM,	ΚĖ,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZM,	ZW,	AM,	AZ,	BY,
	KG,	KZ,	MD,	RU,	ΤJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
	FI,	FR,	GB,	GR,	HU,	IE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,
	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
JP 2004	00239	1		A2		2004	0108	,	JP 2	003-	11356	53		20	00304	118
PRIORITY APPLN. INFO.:								,	JP 2	002-	12060	8 C	i	A 20	00204	123
OTHER SOURCE(S):					TAG	139:	3649	50								

AB Pyrimidines derivs. such as dihydrazinopyrimidine having the general formula (I) and (II) [wherein R1, R3 = H, lower alkyl, halo-lower alkyl, lower alkoxy-lower alkyl, mono- or di(lower alkyl)amino-lower alkyl, (un) substituted aryl; R2, R4 = each (un) substituted aryl or heterocyclyl; or CR2R1 or CR4R3 together forms an (un)substituted saturated carbocyclic or heterocyclic ring; A1, A2 = NR7, O (wherein R7 = lower alkyl); R5 lower alkylthio, each (un) substituted cycloalkyl, aryl, or heterocyclyl, a group having the formula -D-R8 or CH2-E-R8 (wherein D = NH, O, S; E = O, S, a single bond; R8 = each optionally substituted cycloalkyl, aryl, or heterocyclyl, etc.); R6 = H, lower alkyl, lower alkoxy, lower alkoxy-lower alkyl, mono- or di(lower alkyl)amino-lower alkyl, aralkyl, anilino], pharmaceutically acceptable salts, esters, or other derivs. thereof. are prepared These pyrimidine derivs. exhibit excellent MLR inhibiting action and are useful for inhibiting allograft rejection in bone marrow or organ transplant or for the treatment and/or prevention of inflammation, organ-specific or organ-nonspecific autoimmune diseases, or allergy, in particular chronic articular rheumatism, multiple sclerosis, inflammatory enteric disease, diabetes, glomerulonephritis, idiopathic biliary cirrhosis, active chronic hepatitis, pernicious anemia, Hashimoto thyroiditis, atrophic gastritis, myasthenia gravis, psoriasis, Sjoegren's syndrome, systemic lupus erythematosus, rhinitis, asthma, or atopic dermatitis. They are also useful for inhibiting cancer cells, in particular cancerous lymphocyte. Thus, 480 mg N-(2,6-dichloropyrimidin-4yl)phenylamine was stirred with 3 mL hydrazine monohydrate at 90° for 1 h, cooled to room temperature, treated with H2O, followed by filtering

the

precipitated crystals, washing them with water, Et acetate, and drying under reduced pressure to give crude N-(2,6-dihydrazinopyrimidin-4-yl)phenylamine. The latter compound was dissolved in 5 mL dioxane, treated with 1.7 mL 4-acetylpyridine, refluxed for 15 h, distilled to remove the solvent, and suspended in a mixture of ether and Et acetate, followed by pulverizing the precipitated solid, filtration, and washing with a mixture of ether

and Et acetate to give 1-(4-pyridinyl)-1-ethanone N-[4-anilino-6-[2-[1-(4-pyridinyl)ethylidene]hydrazino]-2-pyrimidinyl]hydrazone (III). In an MLR inhibition assay, III and 1-(4-pyridinyl)-1-ethanone N-[2-anilino-6-[2-[1-(4-pyridinyl)ethylidene]hydrazino]-4-pyrimidinyl]hydrazone in vitro inhibited the uptake of [3H]thymidine in human peripheral lymphocyte with IC50 of 6.9 and 1.0 nM, resp.

IC ICM C07D239-50

ICS C07D401-14; C07D403-14; C07D409-14; C07D417-14; A61K031-505; A61K031-506; A61P001-00; A61P001-04; A61P001-16; A61P003-10; A61P007-06; A61P011-02; A61P011-06; A61P013-12; A61P017-00; A61P017-06; A61P019-02; A61P021-04; A61P025-00

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 1

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     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (preparation of pyrimidine derivs. as mixed lymphocyte reaction inhibitors
        for treatment of cancer or allograft rejection and for treatment and/or
        prevention of inflammation, organ-(non)specific autoimmune diseases, or
IT
                                   64-04-0, 2-Phenylethylamine
     62-53-3, Aniline, reactions
                                                                  83-13-6,
     Diethyl phenylmalonate 87-59-2, 2,3-Dimethylaniline
                                                              90-04-0,
     2-Methoxyaniline 90-05-1, 2-Methoxyphenol 94-09-7, Ethyl
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95-68-1, 2,4-Dimethylaniline 95-69-2, 2-Methyl-4-chloroaniline 95-76-1, 3,4-Dichloroaniline 97-50-7 98-16-8, 3-Trifluoromethylaniline 99-09-2, 3-Nitroaniline 99-88-7, 4-Isopropylaniline 99-98-9, 100-01-6, 4-Nitroaniline, reactions 4-Dimethylaminoaniline 100-61-8, N-Methylaniline, reactions 102-50-1, 2-Methyl-4-methoxyaniline 104-13-2, 4-n-Butylaniline 104-94-9, 4-Methoxyaniline 104-96-1, 4-Methylthioaniline 105-53-3, Diethyl malonate 106-40-1, 106-47-8, 4-Chloroaniline, reactions 4-Bromoaniline 106-49-0, 4-Methylaniline, reactions 108-42-9, 3-Chloroaniline 108-44-1, 3-Methylaniline, reactions 108-69-0, 3,5-Dimethylaniline 108-91-8, Cyclohexylamine, reactions 110-89-4, Piperidine, reactions 121-90-4, 3-Nitrobenzoyl chloride 122-04-3, 4-Nitrobenzoyl chloride 123-08-0, 4-Hydroxybenzaldehyde 123-75-1, Pyrrolidine, reactions 124-63-0, Methanesulfonyl chloride 133-13-1, Diethyl ethylmalonate 139-59-3, 4-Phenoxyaniline 142-04-1, Aniline hydrochloride 153-78-6, 2-Aminofluorene 156-43-4, 4-Ethoxyaniline 321-73-3 348-54-9, 2-Fluoroaniline 366-99-4, 3-Fluoro-4-methoxyaniline 367-21-5, 3-Chloro-4-fluoroaniline 367-25-9, 2,4-Difluoroaniline 367-29-3, 2-Methyl-5-fluoroaniline 367-30-6, 2,5-Difluoroaniline 367-34-0, 2,4,5-Trifluoroaniline 369-68-6, 3-Trifluoromethylthioaniline 371-40-4, 4-Fluoroaniline 372-19-0, 3-Fluoroaniline 372-39-4, 3,5-Difluoroaniline 420-04-2, Cyanamide 437-83-2 443-86-7, 2-Methyl-3-fluoroaniline 452-69-7 452-71-1, 2-Methyl-4-fluoroaniline 452-77-7, 3-Fluoro-4-methylaniline 452-84-6, 2-Fluoro-5-methylaniline 455-14-1, 4-Trifluoromethylaniline 458-52-6, 2-Fluoro-4-methoxyaniline 461-82-5, 4-Trifluoromethoxyaniline 462-08-8, 3-Aminopyridine 496-15-1, Indoline 536-90-3, 3-Methoxyaniline 578-54-1, 2-Ethylaniline 580-15-4, 6-Aminoquinoline 589-16-2, 4-Ethylaniline 591~19-5, 3-Bromoaniline 607-81-8, Diethyl benzylmalonate 609-08-5, Diethyl methylmalonate 621-33-0, 3-Ethoxyaniline 626-43-7, 3,5-Dichloroaniline 636-21-5, 2-Methylaniline hydrochloride 685-87-0, Diethyl 656-65-5 bromomalonate 704-13-2, 3-Hydroxy-4-nitrobenzaldehyde 713-67-7 831-75-4, 3-(1,1,2,2-Tetrafluoroethoxy) aniline 1072-82-8, 3-Acetylpyrrole 1122-54-9, 4-Acetylpyridine 1135-12-2, 4-Benzylaniline 1535-73-5, 3-Trifluoromethoxyaniline 1544-85-0, 2,2-Difluorobenzo[1,3]dioxol-5-ylamine 1670-14-0 1783-81-9, 3-Methylthioaniline 1788-10-9, 4-Acetylbenzenesulfonyl chloride 2106-04-9, 2-Fluoro-3-chloroaniline 2106-05-0 2163-48-6, Diethyl 2243-47-2, 3-Biphenylamine 2357-47-3, propylmalonate 3-Trifluoromethyl-4-fluoroaniline 2380-36-1, 3,5-Di-tert-butylaniline 2696-84-6, 4-n-Propylaniline 2987-53-3, 2-Methylthioaniline 3586-12-7, 3-Phenoxyaniline 3764-01-0, 2,4,6-Trichloropyrimidine 3863-11-4, 3,4-Difluoroaniline 4023-02-3 4518-10-9, Methyl 3-aminobenzoate 4519-40-8, 2,3-Difluoroaniline 4534-10-5, 3-Methyl-4-isopropylaniline 5018-30-4, Dimethyl methoxymalonate 5369-19-7, 3-tert-Butylaniline 5438-70-0, Ethyl 4-aminophenylacetate 5470-11-1, Hydroxylamine hydrochloride · 5651-14-9, 2-Naphthalenecarboximidamide 6274-18-6 6299-25-8, 2-Methylthio-4,6-dichloropyrimidine 6373-50-8, 4-Cyclohexylaniline 6414-58-0, Diethyl anilinomalonate 6553-96-4, 2,4,6-Triisopropylbenzenesulfonyl chloride 6967-12-0, 1H-Indazol-6-amine 7024-58-0 7664-66-6, 4-Isopropoxyaniline 7803-57-8, Hydrazine monohydrate 13623-25-1 14268-66-7, Benzo[1,3]dioxol-5-ylamine 16245-79-7, 4-n-Octylaniline 18465-11-7 19335-11-6, 1H-Indazol-5-ylamine 21436-96-4, 2,4-Dimethylaniline hydrochloride 22013-33-8, 2,3-Dihydrobenzo[1,4]dioxin-6-ylamine 22236-08-4, 3-Difluoromethoxyaniline 23255-20-1, Nicotinamidine 24313-88-0, 3,4,5-Trimethoxyaniline 24425-40-9 28840-63-3, 2,4,6-Trihydrazinopyrimidine 30273-11-1, 4-sec-Butylaniline 33322-60-0, 3-Amino-N, N-dimethylbenzamide 35161-70-7, N-Methylhexylamine

40891-33-6, 3,5-Dimethoxyaniline hydrochloride

39905-57-2

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     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of pyrimidine derivs. as mixed lymphocyte reaction inhibitors
        for treatment of cancer or allograft rejection and for treatment and/or
        prevention of inflammation, organ-(non)specific autoimmune diseases, or
        allergy)
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RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrimidine derivs. as mixed lymphocyte reaction inhibitors for treatment of cancer or allograft rejection and for treatment and/or prevention of inflammation, organ-(non)specific autoimmune diseases, or allergy)

#### IT 620980-68-9P 620980-71-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrimidine derivs. as mixed lymphocyte reaction inhibitors for treatment of cancer or allograft rejection and for treatment and/or prevention of inflammation, organ-(non)specific autoimmune diseases, or allergy)

RN 620980-68-9 HCAPLUS

CN 4(1H)-Pyrimidinone, 2-[[4-methoxy-3-(trifluoromethyl)phenyl]amino]-6-[[1(4-pyridinyl)ethylidene]hydrazino]-, [1-(4-pyridinyl)ethylidene]hydrazone
(9CI) (CA INDEX NAME)

RN 620980-71-4 HCAPLUS

CN 4(1H)-Pyrimidinone, 2-[[4-methoxy-3-(trifluoromethyl)phenyl]amino]-6-[[[4-(methylsulfonyl)phenyl]ethylidene]hydrazino]-, [[4-(methylsulfonyl)phenyl]ethylidene]hydrazone (9CI) (CA INDEX NAME)

- IT 95-69-2, 2-Methyl-4-chloroaniline 620984-76-1
  - RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of pyrimidine derivs. as mixed lymphocyte reaction inhibitors

for treatment of cancer or allograft rejection and for treatment and/or prevention of inflammation, organ-(non)specific autoimmune diseases, or allergy)

- RN 95-69-2 HCAPLUS
- CN Benzenamine, 4-chloro-2-methyl- (9CI) (CA INDEX NAME)

- RN 620984-76-1 HCAPLUS
- CN 4(1H)-Pyrimidinone, 6-hydrazino-2-[[4-methoxy-3-(trifluoromethyl)phenyl]amino]-, hydrazone (9CI) (CA INDEX NAME)

- IT 393-15-7P 620984-75-0P
  - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrimidine derivs. as mixed lymphocyte reaction inhibitors for treatment of cancer or allograft rejection and for treatment and/or prevention of inflammation, organ-(non)specific autoimmune diseases, or allergy)

- RN 393-15-7 HCAPLUS
- CN Benzenamine, 4-methoxy-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

- RN 620984-75-0 HCAPLUS
- CN 4(1H)-Pyrimidinone, 6-hydroxy-2-[[4-methoxy-3-(trifluoromethyl)phenyl]amino]- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 4 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

3

ACCESSION NUMBER:

2003:777734 HCAPLUS

DOCUMENT NUMBER:

139:292242

TITLE:

Preparation of heteroarylphenoxyphenylacetates for

treating diseases associated with glucose metabolism, lipid

metabolism and insulin secretion.

INVENTOR(S):

Zhao, Zuchun; Chen, Xin; Wang, Jianchao; Sun, Hongbin;

Liang, Jack Shih-Chieh

PATENT ASSIGNEE(S): SOURCE:

Metabolex, Inc., USA PCT Int. Appl., 330 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	PATENT NO.						KIND DATE				ICAT:		DATE				
WO	2003080545						1	WO 2	003-1	JS88	20030319						
	2003080545								_			20030313					
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							IN,										
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							CM,										
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PRIORIT	PRIORITY APPLN. INFO.:							ţ	JS 20	002-3	36696	P 20020320					
OTHER SOURCE(S):					MARPAT 139:292242												

$$(R^3)_{\mathfrak{m}} \qquad \qquad (R^3)_{\mathfrak{m}} \qquad \qquad (R^3$$

Title compds. [I, II; X = O, S, SO, SO2, NR; R = H, alkyl, CORa, CO2Ra, AB CONRaRb; Ra, Rb = H, alkyl; Y = CH2ORc, CO2Rc, CHO, CONRCRm, CH(:NRC), CH(:NORc), carboxylic acid surrogates; Rc = H, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, alkylene-Z; Z = CORd, CO2Rd, NRdRe, NRdCONReR, NRdCORe, NRdCO2Re, CONRdRe; Rd, Re, Rf = H, alkyl, Ph; 2 of Rd, Re, Rf attached to the same N form a 5-6 membered ring; Rm = H, alkyl, aryl, OH, SO2Rn; Rn = alkyl, haloalkyl, aralkyl, heteroalkyl, aryl, heteroaryl, alkoxy, aryloxy, (di)alkylamino, (di)arylamino, haloalkylamino, di(haloalkyl)amino; RmRcN = 5-6 membered ring; Ar = (substituted) heteroaryl; q = 0-2; R1, R3 = halo, OH, alkyl, alkenyl, alkynyl, alkoxy, cycloalkyl, cycloalkylalkyl, haloalkyl, heteroalkyl, heterocyclyl, heterosubstituted cycloalkyl, heteroalkyl substituted cycloalkyl, haloalkoxy, NO2, cyano, Ph, PhO, NRj-Ph, SOr-Ph, CORj, CO2Rj, NRJRk, SOrRj, SO2NRjRk, NRJCONRkRi, NRJCORk, NRJCOORk, CONRjRk wherein the Ph ring is optionally substituted and Rj, Rk, Rl = H, alkyl, haloalkyl; 2 of Rj, Rk, Rl when attached to the same N form a 5-6 membered ring; r =0-2; R2 = H, alkyl, haloalkyl, aralkyl, alkylene-Z; m = 0-4; p = 0-3], were prepared Thus, reaction of 3-F3CC6H4CHBrCO2Et with 2-(2-benzoxazolyl)-4-trifluoromethylphenol followed by saponification with LiOH gave title compound (III). III effectively lowered glucose in mice at ≤25 mg/kg orally.

IC ICM C07C

CC 28-6 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1

ΙT 57-71-6, Diacetyl monoxime 60-34-4, Methylhydrazine 67-63-0, Isopropanol, reactions 71-36-3, 1-Butanol, reactions 78-95-5 88-74-4, 2-Aminonitrobenzene 90-64-2, Phenylhydroxyacetic acid 95-85-2, 2-Amino-4-chlorophenol 95-55-6, 2-Aminophenol 100-63-0, Phenylhydrazine 104-01-8-4-Methoxyphenylacetic acid 105-36-2, Ethyl 106-48-9, 4-Chlorophenol bromoacetate 108-01-0, 2-(Dimethylamino) ethanol 137-07-5, 2-Aminothiophenol N-Acetylethanolamine 321-14-2, 2-Hydroxy-5-chlorobenzoic acid

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349-10-0, 3-Trifluoromethylmandelic acid
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455-19-6, 4-Trifluoromethylbenzaldehyde 492-86-4 534-07-6,
                     611-71-2 · 622-40-2, 2-Morpholin-4-ylethanol
1,3-Dichloroacetone
624-80-6, Ethylhydrazine 695-96-5, 2-Bromo-4-chlorophenol
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2,5-Dimethoxytetrahydrofuran
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                               1798-09-0, 3-Methoxyphenylacetic acid
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           2675-89-0, N, N-Dimethyl chloroacetamide 2955-88-6,
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2-Pyrrolidin-1-ylethanol 3042-81-7, Methyl 2-bromo-2-phenylacetate
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3144-09-0, Methanesulfonamide
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2-hydroxy-5-chlorobenzoate 4091-39-8 4595-59-9, 5-Bromopyrimidine
4748-78-1, 4-Ethylbenzaldehyde 5042-30-8, 2,2,2-Trifluoroethylhydrazine
           5292-43-3, tert-Butyl bromoacetate
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                           7120-43-6, 2-Hydroxy-5-chlorobenzamide
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2-Amino-3-hydroxypyridine 17199-29-0
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3-Phenoxyphenylacetic acid
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trifluoromethylbenzoic acid
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RL: RCT (Reactant); RACT (Reactant or reagent)
   (preparation of heteroarylphenoxyphenylacetates for treating diseases
   associated with glucose metabolism, lipid metabolism and insulin secretion)
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RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
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ΤТ

(preparation of heteroarylphenoxyphenylacetates for treating diseases associated with glucose metabolism, lipid metabolism and insulin secretion)
IT 16867-03-1, 2-Amino-3-hydroxypyridine 77053-56-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of heteroarylphenoxyphenylacetates for treating diseases associated with glucose metabolism, lipid metabolism and insulin secretion)

RN 16867-03-1 HCAPLUS

CN 3-Pyridinol, 2-amino- (6CI, 8CI, 9CI) (CA INDEX NAME)

RN 77053-56-6 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-methoxy-, ethyl ester (9CI) (CA INDEX NAME)

IT 50612-99-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of heteroarylphenoxyphenylacetates for treating diseases associated with glucose metabolism, lipid metabolism and insulin secretion)

RN 50612-99-2 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-methoxy-, methyl ester (9CI) (CA INDEX NAME)

L33 ANSWER 5 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:610204 HCAPLUS

DOCUMENT NUMBER:

139:164801

TITLE:

Preparation of 2,4-pyrimidinediamines as IgE and/or IgG receptor modulators for treatment of allergic diseases, inflammatory conditions, and tissue

destruction

INVENTOR(S):

Singh, Rajinder; Argade, Ankush; Payan, Donald G.; Molineaux, Susan; Holland, Sacha J.; Clough, Jeffrey;

Keim, Holger; Bhamidipati, Somasekhar; Sylvain, Catherine; Li, Weigun; Rossi, Alexander B.

PATENT ASSIGNEE(S):

Rigel Pharmaceuticals, Inc., USA

SOURCE:

GΙ

PCT Int. Appl., 648 pp.

DOCUMENT TYPE:

CODEN: PIXXD2 Patent

LANGUAGE:

English

DANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

P.	PATENT NO.					KIND DATE				APPL	ICAT		DATE				
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								IS,									
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
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	RW:	GH,															
								ΑT,									
								IT,									BF,
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			)2		A1		2004	0212		US 2	003-	35554	20030131				
E:	P 1471												20030131				
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
					LV,	FΙ,	RO,	MK,	CY,	ΆL,	TR,	BG,	CZ,	EE,	HU,	SK	
PRIORI'	TY APP	LN. I	NFO	.:						US 2	002-	35326	57P	]	P 2	0020	201
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						,	WO 2	003-1	US302	22	1	W 2	0030	131			
OTHER SOURCE(S):					MARPAT 139:164801												

AB Title compds. I [wherein L1 and L2 = independently a bond or a linker; R2 = (un)substituted alkyl, (hetero)cycloalkyl, or (hetero)aryl; R4 = H or R2; R5 = R6 or (un)substituted alkyl, alkenyl, or alkynyl; R6 = independently H, an electroneg. group, protected alc. or thiol, haloalkyl(oxy), halo, CN, NC, OCN, SCN, NO, NO2, N3, or (un)substituted

amino, sulfamoyl(oxy), acyl, carboxy, carbamoyl, (hetero)aryl(alkyl), etc.; with provisos and exclusions; and salts, hydrates, solvates, N-oxides, and prodrugs thereof] were prepared as inhibitors of the IgE and/or IqG receptor signaling cascades that lead to the release of chemical mediators. For example, coupling of 2,4-dichloropyrimidine with 4-ethoxyaniline in EtOH provided N2,N4-bis(4-ethoxyphenyl)-2,4pyrimidinediamine (II). The latter inhibited degranulation of bone marrow derived mast cells challenged with anti-IgE and ionomycin with IC50 values of 4.5  $\mu\text{M}$  and 4.4  $\mu\text{M}$ , resp. Thus, I and their pharmaceutical compns. are useful in the treatment and prevention of diseases characterized by, caused by, or associated with the release of chemical mediators via degranulation of mast, basophil, neutrophil, or eosinophil cells and other processes effected by activation of the IgE and/or IgG receptor signaling cascades. The treatment and prevention of allergic diseases, low grade scarring, diseases associated with tissue destruction, diseases associated with tissue inflammation, inflammation, and scarring are targeted uses (no data).

IC ICM A61K

IT

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) Section cross-reference(s): 1, 63

312616-70-9P 40423-75-4P 40505-53-1P 312616-72-1P 313240-30-1P 313240-31-2P 313240-32-3P 313240-33-4P 313240-34-5P 313668-38-1P 313668-46-1P 325824-61**-**1P 325824-63-3P 362620-72-2P 439946-02-8P 511244-65-8P 443645-68-9P 511245-25-3P 511247-25-9P 575474-81-6P 575474-83-8P 575474-84-9P 575474-85-0P 575474-86-1P 575474-87-2P 575474-89-4P 575474-88-3P 575474-90-7P 575474-91-8P 575474-92-9P 575474-93-0P 575474-94-1P 575474-97-4P 575474-98-5P 575474-99-6P 575475-01-3P 575475-02-4P 575475-04-6P 575475-05-7P 575475-06-8P 575475-07-9P 575475-08-0P 575475-09-1P 575475-10-4P 575475-12-6P 575475-13-7P 575475-14-8P 575475-15-9P 575475-16-0P 575475-17-1P 575475-18-2P 575475-19-3P 575475-20-6P 575475-21-7P 575475-22-8P 575475-24-0P 575475-28-4P 575475-23-9P 575475-25-1P 575475-30-8P 575475-31-9P 575475-32-0P 575475-33-1P 575475-34-2P 575475-35-3P 575475-38-6P 575475-39-7P 575475-40-0P 575475-36-4P 575475-41-1P 575475-42-2P 575475-43-3P 575475-44-4P 575475-45-5P 575475-46-6P 575475-47-7P 575475-48-8P 575475-49-9P 575475~50-2P 575475-51-3P 575475-52-4P 575475-53-5P 575475-54-6P 575475-55**-**7P 575475-56-8P 575475-57-9P 575475-58-0P 575475-59-1P 575475-60-4P 575475-61-5P 575475-62-6P 575475-63-7P 575475-64-8P 575475-65-9P 575475-69-3P 575475-71-7P 575475-70-6P 575475-72-8P 575475-73-9P 575475-74-0P 575475-75-1P 575475-78-4P 575475-79-5P 575475-80-8P 575475-81-9P 575475-83-1P 575475-85-3P 575475-82-0P 575475-84-2P 575475-86-4P 575475-89-7P 575475-90-0P 575475-87-5P 575475-88-6P 575475-91-1P 575475-94-4P 575475-95-5P 575475-96-6P 575475-93-3P 575476-00-5P 575476-02-7P 575476-04-9P 575476-05-0P 575476-01-6P 575476-06-1P 575476-10-7P 575476-07-2P 575476-08-3P 575476-09-4P 575476-11-8P 575476-13-0P 575476-12-9P 575476-14-1P 575476-15-2P 575476-19-6P 575476-22-1P **575476-23-2P** 575476~20-9P 575476-21-0P 575476-24-3P 575476-25-4P 575476-26-5P 575476-27-6P 575476-28-7P 575476-30-1P 575476-31-2P 575476-32-3P 575476-33-4P 575476-34-5P 575476-35-6P 575476-36-7P 575476-37-8P 575476-38-9P 575476-39-0P 575476-44-7P 575476-41-4P 575476-42-5P 575476-43-6P 575476-45-8P 575476-46-9P 575476-47-0P 575476-48-1P 575476-49-2P 575476-50-5P 575476-51-6P 575476-52-7P 575476-53-8P 575476-54-9P 575476-55-0P 575476-59-4P 575476-56-1P 575476-57-2P 575476-58-3P 575476-60-7P 575476-61-8P 575476-62-9P 575476-63-0P 575476-64-1P 575476-65-2P 575476-66-3P 575476-67-4P 575476-68-5P 575476-69-6P 575476-70-9P 575476-71-0P 575476-72-1P 575476-73-2P 575476-74-3P 575476-75-4P 575476-76-5P 575476-77-6P 575476-78-7P 575476-79-8P 575476-81-2P

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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(IgE and/or IgG receptor modulator; preparation of pyrimidinediamines as IgE and/or IgG receptor modulators for treatment of allergic diseases, inflammatory conditions and tissue destruction)

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inflammatory conditions, and tissue destruction)
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    RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
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        (IgE and/or IgG receptor modulator; preparation of pyrimidinediamines as IgE
       and/or IgG receptor modulators for treatment of allergic diseases,
       inflammatory conditions, and tissue destruction)
IT
    51-21-8, 5-Fluorouracil
                              51-67-2, Tyramine
                                                  54-20-6,
     5-Trifluoromethyluracil
                              55-81-2, 2-(4-Methoxyphenyl)ethylamine
    56-41-7, L-Alanine, reactions 58-85-5, D-(+)-Biotin
    Tryptamine
                 64-04-0, 2-Aminoethylbenzene
                                                65-49-6, 4-Amino-2-
    hydroxybenzoic acid
                          67-64-1, Acetone, reactions
                                77-92-9, Citric acid, reactions 78-96-6,
    Isopropylamine, reactions
    2-Hydroxypropylamine
                           88-19-7
                                     89-57-6, 5-Amino-2-hydroxybenzoic acid
    90-41-5, 2-Phenylaniline
                               91-00-9, 1,1-Diphenylmethylamine
    3,4-Dichloroaniline
                          95-80-7
                                   96-32-2, Methyl bromoacetate
    2-Hydroxy-5-nitrobenzoic acid
                                    98-16-8, 3-Trifluoromethylaniline
    98-80-6, Phenylboronic acid
                                99-03-6, 3-Methylcarbonylaniline
    3-Aminobenzoic acid
                          99-09-2, 3-Nitroaniline
                                                    99-55-8,
                              99-57-0, 2-Amino-4-nitrophenol
    2-Methyl-5-nitroaniline
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    2-Methoxy-5-nitroaniline 99-88-7, 4-Isopropylaniline
                                                             99-98-9
    100-02-7, 4-Nitrophenol, reactions 102-28-3
                                                    102-50-1,
                                103-71-9, Phenyl isocyanate, reactions
    4-Methoxy-2-methylaniline
    104-94-9, 4-Methoxyaniline
                                 105-36-2, Ethyl bromoacetate
    4-Chloroaniline, reactions
                                 106-49-0, 4-Methylaniline, reactions
    106-50-3, 1,4-Diaminobenzene, reactions 107-10-8, n-Propylamine,
                107-11-9, Allylamine
                                       108-42-9, 3-Chloroaniline
    3-Aminoaniline, reactions
                                108-91-8, Cyclohexylamine, reactions
    109-01-3, N-Methylpiperazine 109-73-9, n-Butylamine, reactions
    109-76-2, 1,3-Diaminopropane 109-81-9
                                             109-83-1, N-Methyl-N-2-
    hydroxyethylamine 109-85-3, 2-Methoxyethylamine 109-90-0, Ethyl
    isocyanate
                 110-15-6, Succinic acid, reactions
                                                     110-16-7, Maleic acid,
    reactions
                110-17-8, Fumaric acid, reactions 110-85-0, Piperazine,
    reactions
                110-89-4, Piperidine, reactions
                                                110-91-8, Morpholine,
    reactions
                111-42-2, reactions 116-09-6
                                                 119-32-4,
    4-Methyl-3-nitroaniline
                              121-90-4, 3-Nitrobenzoyl chloride
    4-Acetamidoaniline
                        123-30-8, 4-Hydroxyaniline
                                                     123-75-1, Pyrrolidine,
                124-68-5, 2-Amino-2-methylpropanol
    reactions
                                                     135-95-5,
    3-Hydroxymethyl-4-methoxyaniline 136-17-4
                                                150-13-0, 4-Aminobenzoic
           156-43-4, 4-Ethoxyaniline
                                       156-87-6, 3-Hydroxypropylamine
    320-51-4, 4-Chloro-3-trifluoromethylaniline
                                                 364-76-1,
    4-Fluoro-3-nitroaniline
                              367-21-5, 3-Chloro-4-fluoroaniline
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    369-36-8, 2-Fluoro-5-nitroaniline 369-68-6, 3-
     (Trifluoromethylthio) aniline 371-40-4, 4-Fluoroaniline
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    4-(Trifluoromethylthio)aniline 372-19-0, 3-Fluoroaniline
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                          399-95-1, 2-Fluoro-4-hydroxyaniline
    3,5-Difluoroaniline
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                                          452-69-7, 4-Fluoro-3-methylaniline
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    Ethyl 2-aminoacetate
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    3-Aminopyridine
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    chloroformate 505-66-8, Homopiperazine
                                               513-37-1, 1-Chloro-2-
    methylpropene 534-03-2, 2-Amino-1,3-propanediol
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    3-Methoxyaniline
                       539-74-2, Ethyl 3-bromopropionate
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    1-Bromo-2-hydroxyethane 554-84-7, 3-Nitrophenol
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    6-Aminoquinoline 582-33-2, 3-Ethoxycarbonylaniline
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4-Ethylaniline 591-27-5, 3-Hydroxyaniline 593-51-1, Methylamine hydrochloride 600-00-0 611-08-5, 5-Nitrouracil 616-30-8, 3-Amino-1,2-propanediol 617-89-0, Furfurylamine 621-33-0, 623-04-1, 4-Aminobenzyl alcohol 623-33-6, Glycine 3-Ethoxyaniline ethyl ester hydrochloride 634-93-5, 2,4,6-Trichloroaniline 635-21-2, 2-Carboxy-4-chloroaniline 635-22-3, 4-Chloro-3-nitroaniline 2-Amino-4-methylpyridine 720-01-4 765-30-0, Cyclopropylamine 765-39-9, 1-Aminopyrrole 769-92-6, 4-tert-Butylaniline 4-Aminobenzonitrile 1009-36-5, 4-Chloro-3-methoxynitrobenzene 1072-98-6, 5-Chloro-2-aminopyridine 1080-06-4, L-Tyrosine methyl ester 1193-21-1, 4,6-Dichloropyrimidine 1462-37-9, 1-Benzyloxy-2-bromoethane 1476-23-9, Allyl isocyanate 1484-26-0, 3-Benzyloxyaniline 1535-73-5, 3-Trifluoromethoxyaniline 1535-76-8 1544-85-0 1603-41-4, 5-Methyl-2-aminopyridine 1673-47-8, 3-Chlorobenzohydrazide 1679-18-1, 1687-53-2, 3-Hydroxy-4-methoxyaniline 4-Chlorophenylboronic acid 1780-31-0, 2,4-Dichloro-5-methylpyrimidine 1780-40-1, 2,4,5,6-Tetrachloropyrimidine 1795-48-8, Isopropyl isocyanate 1798-11-4, 4-Nitrophenoxyacetic acid 1822-94-2, 5-(Chloromethyl)-3phenyl-1,2,4-oxadiazole 1824-81-3, 2-Amino-6-methylpyridine 1949-55-9 2038-03-1, 4-Morpholineethanamine 3-Aminobenzyl alcohol 2144-37-8, Methyl 5-(chloromethyl)-2-furoate 2237-30-1, 3-Aminobenzonitrile 2243-47-2, 3-Phenylaniline 2393-17-1, 3-(p-Aminophenyl)propionic acid 2393-23-9, 4-Methoxybenzylamine 2423-71-4, 2,6-Dimethyl-4-nitrophenol 2516-47-4, Cyclopropylmethylamine 2524-67-6 2597-56-0, 2-Methoxy-4-nitrobenzoic acid 2620-50-0, Piperonylamine 2627-86-3 2666-93-5, Leucine methyl ester 2735-04-8, 2743-60-4, L-Leucine ethyl ester 2,4-Dimethoxyaniline 2835~78-1, 3-Phenylcarbonylaniline 2835-95-2, 3-Hydroxy-4-methylaniline 2835-96-3, 4-Hydroxy-3-methylaniline 2836-04-6, 3-(Dimethylamino)aniline 3081-24-1 3096-69-3, 2,3-Dimethyl-4-hydroxyaniline 3096-71-7, 2,5-Dimethyl-4-hydroxyaniline 3182-93-2, L-Phenylalanine 3343-28-0, N-Phthaloyl-DL-glutamic anhydride ethyl ester hydrochloride 3544-25-0, 4-Cyanomethylaniline 3676-85-5, 4-Aminophthalimide 3731-51-9, 2-Pyridylmethylamine 3731-52-0, 3-Pyridylmethylamine 3764-01-0, 2,4,6-Trichloropyrimidine 3863-11-4, 3,4-Difluoroaniline 3886-69-9 3934-20-1, 2,4-Dichloropyrimidine 3964-52-1, 3-Chloro-4-hydroxyaniline 4152-09-4, N-Benzyl-1,2-diaminoethane 4344-55-2, 4-Butoxyaniline 4403-70-7, 3-Aminobenzylamine 4425-56-3, 5-Cyanouracil 4442-59-5, 2,3-Dihydro-1,4-benzodioxin-2-ylmethylamine 4461-30-7 4543-47-9, 3-Furanmethanamine 4553-21-3 4747-71-1, Cyclopentyl isocyanate 5071-96-5, 3-Methoxybenzylamine 5131-58-8 5192-03-0, 5-Aminoindole 5228-48**-**8 5292-43-3, tert-Butyl bromoacetate 5318-27-4, 6-Aminoindole 5345-54-0, 3-Chloro-4-methoxyaniline 5369-19-7, 3-tert-Butylaniline 5350-93-6 5369-16-4, 3-Isopropylaniline 5401-94-5 5428-54-6, 2-Methyl-5-nitrophenol 5438-70-0, Ethyl 4-aminophenyl acetate 5445-26-1, Ethyl 4-nitrophenylacetate 5930-28-9, 3,5-Dichloro-4-5862-77-1, 3-Amino-4-ethoxyaniline hydroxyaniline 5978-75-6, 9-Aminofluorene hydrochloride 6264-67-1 6299-85-0 6315-89-5, 3,4-Dimethoxyaniline 6358-64-1, 2,5-Dimethoxy-4-chloroaniline 6421-88-1 6628-77-9, 3-Amino-6-methoxypyridine 6967-12-0, 6-Aminoindazole 7568-93-6, 2-Amino-1-phenylethanol 7597-18-4 7647-01-0, Hydrochloric acid, 7664-66-6, 4-Isopropoxyaniline reactions 10242-12-3, 5-Nitro-2-benzofurancarboxylic acid 10272-07-8, 3,5-Dimethoxyaniline 13871-68-6, 4-Acetoxyaniline 13331-23-2, Furan-2-boronic acid 14268-66-7, 3,4-Methylenedioxyaniline 14415-44-2, 6-Aminocoumarin 16154-69-1, 4-(4-Benzylpiperazin-1-yl)aniline 16452-01-0, 3-Methoxy-4-methylaniline 16642-79-8, 3-(p-Nitrophenyl)propionic acid 16732-57-3 17413-10-4 17431-03-7, L-Valine ethyl ester 19293-62-0

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19335-11-6, 5-Aminoindazole 19617-43-7, Ethoxycarbonyl isocyanate
    20348-09-8, 2H-Pyrido[3,2-b]-1,4-oxazin-3(4H)-one
                                                       20734-67-2,
    5-Aminobenzene-1,3-diol 21169-65-3 21443-96-9, 7-Aminoindazole
    22013-33-8, 3,4-Ethylenedioxyaniline 22038-86-4, (R)-(+)-1-(4-
    Methoxyphenyl) ethylamine
                               22235-25-2, 3-Methoxycarbonyl-5-
    trifluoromethylaniline
                             24313-88-0, 3,4,5-Trimethoxyaniline
                                                                   24358-62-1,
     1-(4-Bromophenyl)ethylamine
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of pyrimidinediamines as IgE and/or IgG receptor modulators for
       treatment of allergic diseases, inflammatory conditions, and tissue
       destruction)
IT
    24424-99-5, Di-tert-butyl dicarbonate
                                            25170-72-3
                                                         26215-14-5
     26682-99-5, Phenylglycine methyl ester
                                             27906-24-7
                                                          28020-37-3,
     3-Amino-2,6-dimethoxypyridine
                                   28059-69-0
                                                 28485-17-8,
     5-Ethoxycarbonyluracil
                             28942-84-9
                                        29263-94-3, Diethyl
     2-bromo-2-methylmalonate
                             30418-59-8, 3-Aminophenylboronic acid
     30734-81-7
                 30866-24-1
                              31329-64-3 33311-29-4
                                                        33786-89-9,
     3-Amino-5-chloroaniline
                              33901-46-1
                                           36082-50-5, 5-Bromo-2,4-
     dichloropyrimidine
                         37045-73-1, 3-Methylsulfonylaminoaniline
                                                                   38910-17-7
     39811-17-1, 2-Methoxy-5-phenylaniline
                                          39905-57-2, 4-n-Hexyloxyaniline
     40353-34-2, 7-Nitro-1-tetralone
                                     40615-04-1, Benzo[b]thiophene-3-
    methanamine
                  41402-58-8
                               41406-00-2, 3-Isopropoxyaniline
     (S) - (-) -1 - (4 - Methoxyphenyl) ethylamine
                                           42758-84-9, 3-Acetoxyaniline
                42933-43-7, 5-Amino-2,3-dihydrobenzofuran
     42923-79-5
                                                            42961-88-6
     50541-93-0, N-Benzyl-4-aminopiperidine
                                            50593-24-3
                                                         50868-72-9,
                                50963-77-4
     5-Methoxy-2-methylaniline
                                             52481-41-1
                                                          52547-48-5
                              53250-82-1
    52913-11-8
                 53222-92-7
                                          54368-61-5 54962-75-3,
     3-Bromo-5-trifluoromethylaniline 55411-44-4, 4-Amino-2-chloro-6-
                   55745-74-9
                                56607-76-2
                                            56813-48-0
    methylphenol
                                                         56932-44-6
     56970-26-4, 4-Methoxy-3-phenylaniline
                                            57319-65-0, 6-Amino-3,3-
     dihydroisobenzofuran-1-one 57946-65-3
                                             58754-71-5, 4-(2,3-
    Dihydroxypropoxy)aniline 59954-04-0, Methyl 4-aminophenoxyacetate
                 62802-42-0, 2-Chloro-5-fluoropyrimidine
                                                           63503-60-6,
     62345-76-0
     3-Chlorophenylboronic acid
                                64628-73-5, 3-Chloro-4-
     trifluoromethoxyaniline
                             65934-74-9, 4-Methyl-3-trifluoromethylaniline
                                             67952-93-6, 3-Chloro-4-
     66211-46-9, (R)-3-Amino-1,2-propanediol
                        68621-88-5, 3-tert-Butoxycarbonylaminoaniline
    methylbenzylamine
     69411-68-3, 3-Fluoro-4-trifluoromethylaniline
                                                   69959-88-2
                                                               70264-94-7,
    Methyl (4-bromomethyl)-3-methoxybenzoate 70338-47-5,
     4-Benzyloxy-3-trifluoromethylaniline 71026-66-9, 4-tert-
    Butoxycarbonylaminoaniline
                                71056-61-6 71597-85-8, 4-
    Hydroxyphenylboronic acid
                                73732-51-1, 3-(Tetrazol-5-yl)aniline
                 81720-19-6
                             87029-84-3
                                         88327-91-7, 4-(Tetrahydro-(1H)-
     80938-67-6
    pyrrol-1-ylsulfonyl)aniline
                                                           89976-75-0
                                               89586-07-2
                                  89260-46-8
                94839-07-3, 3,4-Methylenedioxyphenylboronic acid
     92028-21-2
                                                                    96100-12-8
     98280-30-9
                 99768-12-4, (4-Methoxycarbonylphenyl)boronic acid
                                                                   100800-40
     -6, 4-[[3-(N-Morpholino)propyl]oxy]aniline
                                                 103361-43-9
                                                              105807-84-9,
     6-Amino-2,2-dimethyl-4H-benzo[1,4]oxazin-3-one
                                                     110178-35-3
                                                                   126874-73-5
     134855-87-1, 1-(4-Hydroxyphenyl)ethylamine
                                                               141068-81-7
                                                 136544-55-3
     143071-39-0, 2-(2-Hydroxyethoxy)-5-nitropyridine
                                                       157837-31-5,
     3-(1,3-Oxazol-5-yl)aniline
                                 158196-47-5 167027-30-7
                                                            167756-90-3,
     3-((N-tert-Butoxycarbonyl-N-methylamino)methyl)aniline
                                                            169286-84-4
     173735-84-7
                  175136-34-2 175137-27-6
                                             175201-62-4
                                                            175205-10-4
     180258-45-1
                  189683-22-5
                               194025-85-9, 3-Methylaminocarbonyl-4-
    methoxyaniline
                     195046-11-8
                                   203664-68-0
                                                 203664-71-5
                                                               205117-39-1
                               209899-47-8, 3-[(N-tert-
     Butoxycarbonyl) aminomethyl] -4-methylaniline
                                                                226571-61-5
                                                  220844-82-6
     280581-65-9
                  306934-74-7
                                306934-85-0 306937-22-4, Ethyl
     1-(3-aminobenzyl)piperidine-4-carboxylate
                                                307989-43-1 337463-65-7
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439095-26-8
              503166-47-0, 3-(N-Morpholinomethyl)-4-methoxyaniline
575472-85-4
              575472-93-4, 2H-1,4-Benzoxazin-6-amine
                                                          575472-98-9
575473-25-5, 5-Amino-1-methylindazoline
                                            575473-51-7
                                                           575473-75-5
575473-89-1
              575473-93-7
                             575473-95-9
                                            575473-97-1
                                                           575474-01-0
575474-14-5, 4H-Imidazo[2,1-c][1,4]benzoxazin-8-amine
                                                           575474-23-6
575474-31-6
              575474-41-8
                             575476-29-8
                                            575476-87-8
                                                           575476-92-5
575477-07-5
              575477-12-2
                                                           575477-26-8
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575477-29-1
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                             575477-51-9
                                            575477-68-8
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                             575478-36-3
                                            575478-38-5
                                                           575478-41-0
575478-52-3
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                             575478-60-3
                                            575478-64-7
                                                           575478-68-1
575478-73-8.
              575478-82-9
                             575478-83-0
                                            575478-85-2
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575479-26-4
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                             575479-34-4
                                            575479-45-7
                                                           575479-78-6
575479-84-4
              575479-85-5
                             575479-93-5
                                            575479-96-8
                                                           575479-98-0
575480-00-1
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                             575480-11-4
                                            575480-13-6
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                             575480-35-2
                                            575480-38-5
                                                           575480-47-6
575480-51-2
              575480-76-1
                             575480-83-0
                                            575480-85-2
                                                           575480-93-2
575481-41-3
              575481-44-6
                             575481-48-0
                                            575481-53-7
                                                           575481-61-7
575481-66-2
              575481-69-5
                             575481-71-9
                                            575481-73-1
                                                           575481-75-3
575481-77-5
              575481-86-6
                             575481-92-4
                                            575481-94-6
                                                           575482-11-0
575482-16-5
              575482-18-7
                             575482-40-5
                                            575482-50-7
                                                           575482-55-2
575482-60-9
              575482-69-8
                             575482-84-7
                                            575482-89-2
                                                           575482-92-7
575482-94-9
                                          575483-00-0
              575482-96-1 575482-98-3
575483-03-3
              575483-08-8
                             575483-11-3
                                            575483-19-1
                                                           575483-62-4
575483-70-4
              575483-77-1
                             575483-89-5
                                            575483-91-9
                                                           575484-00-3
575484-02-5
              575484-23-0
                                            575484-63-8
                             575484-55-8
                                                           575484-64-9
575484-66-1
              575484-71-8
                             575484-74-1
                                            575484-83-2
                                                           575485-07-3
575485~10-8
              575485-12-0
                             575485-27-7
```

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of pyrimidinediamines as IgE and/or/IgG receptor modulators for treatment of allergic diseases, inflammatory conditions, and tissue destruction)

#### IT 575476-23-2P 575482-97-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(IgE and/or IgG receptor modulator; preparation of pyrimidinediamines as IgE and/or IgG receptor modulators for treatment of allergic diseases, inflammatory conditions, and tissue destruction)

RN 575476-23-2 HCAPLUS

CN

2,4-Pyrimidinediamine, 5-fluoro-N,N'-bis[4-(phenylmethoxy)-3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

RN 575482-97-2 HCAPLUS

CN Acetamide, 2-[3-[[5-fluoro-4-[[4-methoxy-3-(trifluoromethyl)phenyl]amino]-2-pyrimidinyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

IT 58-85-5, D-(+)-Biotin 70338-47-5, 4-Benzyloxy-3-

trifluoromethylaniline 575482-98-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of pyrimidinediamines as IgE and/or IgG receptor modulators for treatment of allergic diseases, inflammatory conditions, and tissue destruction)

RN 58-85-5 HCAPLUS

CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 70338-47-5 HCAPLUS

CN Benzenamine, 4-(phenylmethoxy)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 575482-98-3 HCAPLUS

CN 4-Pyrimidinamine, 2-chloro-5-fluoro-N-[4-methoxy-3-

(trifluoromethyl)phenyl] - (9CI) (CA INDEX NAME)

L33 ANSWER 6 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN ACCESSION NUMBER: 2003:190567 HCAPLUS DOCUMENT NUMBER: 139:145678 Activity-based fluorescent probes that target TITLE: phosphatases AUTHOR (S): Zhu, Qing; Huang, Xuan; Chen, Grace Y. J.; Yao, Shao Department of Chemistry, National University of CORPORATE SOURCE: Singapore, Singapore, 117543, Singapore SOURCE: Tetrahedron Letters (2003), 44(13), 2669-2672 CODEN: TELEAY; ISSN: 0040-4039 PUBLISHER: Elsevier Science Ltd. DOCUMENT TYPE: Journal English LANGUAGE: OTHER SOURCE(S): CASREACT 139:145678 We have successfully designed and synthesized two fluorescently-labeled, activity-based probes, Probe 1 and Probe 2, which were shown to label protein tyrosine phosphatases specifically, as well as other types of phosphatases. The probes were not reactive towards the other non-phosphatase enzymes tested. These probes may find potential applications in large-scale proteomic expts. whereby subclasses of proteins may be selectively identified. CC 7-3 (Enzymes) 570391-80-9DP, conjugated with Cy3 570391-81-0DP, conjugated with Cy3 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (activity-based fluorescent probes that target phosphatases) IT 107-15-3D, 1,2-Ethanediamine, conjugated with Cy3 97-51-8 108-30-5, 38078-09-0, DAST 298-12-4 814-49-3 929-59-9 reactions 146368-16-3 RL: RCT (Reactant); RACT (Reactant or reagent)

(activity-based fluorescent probes that target phosphatases)

150196-45-5P 153086-78-3P 1198-84-1P 182227-44-7P

182227-50-5P 429692-36-4P 182227-47-0P 429692-37-5P 570391-82-1P 570391-83-2P

570391-84-3DP, conjugated with Cy3 648916-62-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(activity-based fluorescent probes that target phosphatases)

IT 570391-80-9DP, conjugated with Cy3 570391-81-0DP,

conjugated with Cy3

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(activity-based fluorescent probes that target phosphatases)

RN 570391-80-9 HCAPLUS

CNBenzeneacetamide, N-[2-[2-(2-aminoethoxy)]ethoxy]ethyl]- $\alpha$ -fluoro-4-(phosphonooxy) - (9CI) (CA INDEX NAME)

570391-81-0 HCAPLUS RN

Butanediamide, N-(2-aminoethyl)-N'-[3-(difluoromethyl)-4-CN (phosphonooxy)phenyl] - (9CI) (CA INDEX NAME)

$$\begin{array}{c} & \text{OPO}_3\text{H}_2 \\ & \text{CHF}_2 \\ \\ \text{H}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{NH}-\text{C}-\text{CH}_2-\text{CH}_2-\text{C}-\text{NH} \\ & \\ \text{O} & \text{O} \end{array}$$

IT 146368-16-3

> RL: RCT (Reactant); RACT (Reactant or reagent) (activity-based fluorescent probes that target phosphatases)

RN

146368-16-3 HCAPLUS 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-CN dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

## 182227-47-0P 429692-36-4P 429692-37-5P IT

570391-82-1P 570391-83-2P 570391-84-3DP,

conjugated with Cy3 648916-62-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(activity-based fluorescent probes that target phosphatases)

RN 182227-47-0 HCAPLUS

CN 5,8-Dioxa-2,11-diazatridecanoic acid, 13-[4-[(diethoxyphosphinyl)oxy]pheny l]-13-fluoro-12-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 429692-36-4 HCAPLUS

CN Phosphoric acid, 2-(difluoromethyl)-4-nitrophenyl diethyl ester (9CI) (CA INDEX NAME)

RN 429692-37-5 HCAPLUS

CN Phosphoric acid, 4-amino-2-(difluoromethyl)phenyl diethyl ester (9CI) (CA INDEX NAME)

RN 570391-82-1 HCAPLUS

CN Phosphoric acid, 4-[2-[[2-[2-(2-aminoethoxy)ethoxy]ethyl]amino]-1-fluoro-2-oxoethyl]phenyl diethyl ester (9CI) (CA INDEX NAME)

RN 570391-83-2 .HCAPLUS

CN Butanoic acid, 4-[[4-[(diethoxyphosphinyl)oxy]-3-(difluoromethyl)phenyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{OEt} & \\ & \\ \text{EtO-P-O} \\ \text{O} & \\ \\ \text{O} & \\ \text{CHF}_2 \\ \\ \text{HO}_2\text{C-CH}_2\text{-CH}_2\text{-C-NH} \\ \\ \\ \text{O} & \\ \end{array}$$

RN 570391-84-3 HCAPLUS

CN Phosphoric acid, 4-[[4-[(2-aminoethyl)amino]-1,4-dioxobutyl]amino]-2-(difluoromethyl)phenyl diethyl ester (9CI) (CA INDEX NAME)

RN 648916-62-5 HCAPLUS

CN 3H-Indolium, 2-[3-[1-[18-[4-[(diethoxyphosphinyl)oxy]phenyl]-18-fluoro-6,17-dioxo-10,13-dioxa-7,16-diazaoctadec-1-yl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

PAGE 1-A

HO3S~

PAGE 1-B

REFERENCE COUNT:

12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 7 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:133121 HCAPLUS

DOCUMENT NUMBER:

138:183234

TITLE:

Conjugates of macrocyclic metal complexes with

biomolecules, and the use thereof for producing agents

```
for use in NMR diagnosis, radiodiagnosis and
                         radiotherapy
                         Platzek, Johannes; Schmitt-Willich, Heribert; Michl,
INVENTOR (S):
                         Guenther; Frenzel, Thomas; Suelzle, Detlev; Bauer,
                         Hans; Raduechel, Bernd; Weinmann, Hanns-Joachim;
                         Schirmer, Heiko
PATENT ASSIGNEE(S):
                         Schering AG, Germany
SOURCE:
                         PCT Int. Appl., 93 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
```

German LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.				KIND DATE			APPLICATION NO.				DATE						
_	WO 2003013617 WO 2003013617					WO 2002-EP8000				20020718							
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		co,	CR,	CU,	CZ,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,
							IS,										
		LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,	PL,
		PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,
		UG,	UZ,	VN,	YU,	ZA,	ZM,	ZW									
	RW:	GH,	GM,	ΚĒ,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	KZ,	MD,	RU,	TJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
		FI,	FR,	GB,	GR,	ΙE,	ΙT,	LU,	MC,	NL,	PT,	SE,	SK,	TR,	BF,	ВJ,	CF,
		CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG			
. DE	DE 10135355			C1	21 20030417			DE 2001-10135355				20010720					
BR	BR 2002011150				Α	20040629			BR 2002-11150				20020718				
EP	1450864			A2				EP 2002-794507									
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FΙ,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	SK		
JP	2004	5368	89		T2		2004	1209		JP 2	003-!	5186	19		20	0020.	718
US	US 2003206865			A1		2003	1106	1	US 2	002-	19804	48		20	0050.	719	
PRIORITY APPLN. INFO.:							]	DE 2	001-	1013	5355	Z	A 20	0010	720		
									Ţ	WO 2	002-	EP80	00	1	V 20	0020	718

OTHER SOURCE(S): MARPAT 138:183234

The invention discloses conjugates of macrocyclic metal complexes with biomols., as well as the production thereof. The conjugates are suited for use as contrast agents in NMR diagnosis and radiodiagnosis and as agents for radiotherapy. A high relaxivity is achieved and a fine tuning of the relaxivity is made possible by a special liganding of the macrocycles.

IC ICM A61K049-08 ICS A61K049-00

8-9 (Radiation Biochemistry) CC

Section cross-reference(s): 28, 63, 78

IT 58-85-5D, Biotin, derivs., conjugates 59-30-3D, Folic acid, conjugates 66-97-7D, Psoralen, conjugates 68-19-9D, Vitamin B12, conjugates 7429-91-6D, Dysprosium, complexes 7439-88-5D, Iridium, 7439-89-6D, Iron, complexes 7439-92-1D, Lead, complexes complexes 7439-94-3D, Lutetium, complexes 7439-96-5D, Manganese, complexes 7439-98-7D, Molybdenum, complexes 7440-00-8D, Neodymium, complexes 7440-02-0D, Nickel, complexes 7440-05-3D, Palladium, complexes 7440-10-0D, Praseodymium, complexes 7440-12-2D, Promethium, complexes 7440-15-5D; Rhenium, complexes 7440-17-7D, Rubidium, complexes 7440-18-8D, Ruthenium, complexes 7440-19-9D, Samarium, complexes 7440-20-2D, Scandium, complexes 7440-22-4D, Silver, complexes 7440-24-6D, Strontium, complexes 7440-26-8D, Technetium, complexes

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7440-27-9D, Terbium, complexes
                                       7440-30-4D, Thulium, complexes
     7440-32-6D, Titanium, complexes
                                       7440-45-1D, Cerium, complexes
     7440-47-3D, Chromium, complexes
                                        7440-48-4D, Cobalt, complexes
     7440-50-8D, Copper, complexes
                                      7440-52-0D, Erbium, complexes
     7440-53-1D, Europium, complexes
                                      7440-54-2D, Gadolinium, complexes
     7440-55-3D, Gallium, complexes
                                       7440-56-4D, Germanium, complexes
     7440-60-0D, Holmium, complexes
                                       7440-62-2D, Vanadium, complexes
     7440-64-4D, Ytterbium, complexes
                                         7440-65-5D, Yttrium, complexes
     7440-69-9D, Bismuth, complexes
                                       7440-74-6D, Indium, complexes
     9001-67-6D, Neuraminidase, conjugates
                                              33069-62-4D, Taxol, conjugates
     51110-01-1D, Somatostatin, conjugates
                                              52769-51-4D, Endoglycosidase,
     conjugates
                  69552-46-1D, Carbacyclin, conjugates
                                                          116243-73-3D,
                              127464-60-2D, Vascular endothelial growth factor,
     Endothelin, conjugates
                  189752-49-6D, Texaphyrin, conjugates
     conjugates
                                                          494750-83-3D, biomol.
     conjugates
                  494750-91-3D, biomol. conjugates
                                                      497922-13-1D, biomol.
                  497922-14-2D, biomol. conjugates
     conjugates
     RL: DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic
     use); BIOL (Biological study); USES (Uses)
        (macrocyclic metal complex-biomol. conjugates, preparation, and use as
        agents for NMR diagnosis, radiodiagnosis and radiotherapy)
                                    350588-09-9P 350588-10-2P
IT
     172744-88-6P
                    186095-25-0P
     350588-11-3P
                    494750-21-9P
                                    494750-22-0P
                                                   494750~23-1P
                                                                   494750-25-3P
     494750-26-4P
                    494750-27-5P
                                    494750-28-6P
                                                   494750-29-7P
                                                                   494750-30-0P
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                    494750-32-2P
                                    494750-33-3P
                                                   494750-34-4P
                                                                   494750-35-5P
     494750-36-6P
                    494750-37-7P
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                                                   494750-39-9P
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     494750-41-3P
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                                    494750-43-5P
                                                   494750-44-6P
                                                                   494750-45-7P
     494750-46-8P
                    494750-47-9P
                                    494750-48-0P
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     494750-55-9P
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                                    494750-59-3P
                                                   494750-60-6P
                                                                  494750-62-8P
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                                 494750-66-2P
                                                 494750-67-3P
     494750-69-5P 494750-70-8P
                                 494750-71-9P
                                                 494750-72-0P
                    494750-76-4P
     494750-74-2P
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                                                                  494750-82-2P
     494750-84-4P
                    494750-85-5P
                                    494750-87-7P
                                                   494750-89-9P
                                                                  494750-90-2P
     494750-92-4P
                    494750-93-5P
                                    494750-94-6P
                                                   494750-95-7P
                                                                  494750-96-8P
     494750-97-9P
                    494750-98-0P
                                    494750-99-1P
                                                   494751-00-7P
                                                                  494751-01-8P
     494751-02-9P
                    494751-03-0P
                                    494751-04-1P
                                                   494751-05-2P
                                                                  494751-06-3P
     494751-07-4P
                    494751-09-6P
                                    494751-10-9P
                                                   494751-11-0P
                                                                  494751-12-1P
     494751-13-2P
                    494751-14-3P
                                    494751-15-4P
                                                   494751-16-5P
                                                                  494751-17-6P
     494751-18-7P
                    494751-19-8P
                                    494751-20-1P
                                                   494751-21-2P
                                                                  494751-22-3P
     494751-23-4P
                    499203-20-2P
                                    499203-21-3P
                                                   499203-22-4P
                                                                  499203-23-5P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (macrocyclic metal complex-biomol. conjugates, preparation, and use as
        agents for NMR diagnosis, radiodiagnosis and radiotherapy)
TT
     58-85-5D, Biotin, derivs., conjugates
     RL: DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic
     use); BIOL (Biological study); USES (Uses)
        (macrocyclic metal complex-biomol. conjugates, preparation, and use as
        agents for NMR diagnosis, radiodiagnosis and radiotherapy)
RN
     58-85-5 HCAPLUS
CN
     1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-2-oxo-,
     (3aS, 4S, 6aR) - (9CI) (CA INDEX NAME)
```

Absolute stereochemistry. Rotation (+).

IT 350588-10-2P 494750-65-1P 494750-70-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(macrocyclic metal complex-biomol. conjugates, preparation, and use as agents for NMR diagnosis, radiodiagnosis and radiotherapy)

RN 350588-10-2 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-(2-ethoxy-2-oxoethoxy)-, methyl ester (9CI) (CA INDEX NAME)

RN 494750-65-1 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-(4-ethoxy-4-oxobutoxy)-, methyl ester (9CI) (CA INDEX NAME)

RN 494750-70-8 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-[(11-ethoxy-11-oxoundecyl)oxy]-, methyl ester (9CI) (CA INDEX NAME)

L33 ANSWER 8 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN ACCESSION NUMBER: 2002:964313 HCAPLUS

DOCUMENT NUMBER:

138:55745

TITLE:

Preparation of substituted 3-phenyl-2-alkoxypropanoic

acids and analogs as modulators of peroxisome proliferator activated receptors for treatment of

diabetes and related conditions

INVENTOR(S):

Brooks, Dawn Alisa; Warshawsky, Alan M.;

Montrose-Rafezadeh, Chahrzad; Reifel-Miller, Anne; Prieto, Lourdes; Rojo, Isabel; Martin, Jose Alfredo; Gonzales Garcia, Maria Rosario; Torrado, Alicia; Ferritto Crespo, Rafael; Lamas-Peteira, Carlos; Martin-Ortega Finger, Maria; Ardecky, Robert J.

Eli Lilly and Company, USA; Ligand Pharmaceuticals Incorporated

PATENT ASSIGNEE(S):

PCT Int. Appl., 458 pp.

SOURCE: CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.		APPLICATION NO.	DATE			
	A2 20021219	WO 2002-US16950	20020530			
W: AE, AG, AL, CO, CR, CU, GM, HR, HU, LS, LT, LU, PL, PT, RO, UA, UG, US, RW: GH, GM, KE, KG, KZ, MD, GR, IE, IT,	AM, AT, AU, AZ, CZ, DE, DK, DM, ID, IL, IN, IS, LV, MA, MD, MG, RU, SD, SE, SG, UZ, VN, YU, ZA, LS, MW, MZ, SD, RU, TJ, TM, AT, LU, MC, NL, PT,	BA, BB, BG, BR, BY, DZ, EC, EE, ES, FI, JP, KE, KG, KP, KR, MK, MN, MW, MX, MZ, SI, SK, SL, TJ, TM, ZM, ZW . SL, SZ, TZ, UG, ZM, BE, CH, CY, DE, DK, SE, TR, BF, BJ, CF,	GB, GD, GE, GH, KZ, LC, LK, LR, NO, NZ, OM, PH, TN, TR, TT, TZ, ZW, AM, AZ, BY, ES, FI, FR, GB,			
	ML, MR, NE, SN, A 20040216	TD, TG EE 2004-1	20020530			
EP 1392637	A2 20040303	EP 2002-739503	20020530			
IE, SI, LT,	LV, FI, RO, MK, A 20040406	GB, GR, IT, LI, LU, CY, AL, TR BR 2002-10190 US 2001-297144P WO 2002-US16950	20020530 P 20010607			
OTHER SOURCE(S):	MARPAT 138:5574					

II

AB Title compds. I [wherein Ar = (un) substituted aryl; Q = covalent bond, CH2, CH2CH2, CH2CH2CH2, or CH2CH2CH2CH2; W = (un)substituted (hetero)alkylene from 2-10 atoms in length in which 1 or more methylene groups have been replaced with CH=CH, C.tplbond.C, O, CO, NR7, NR7CO, C(=NOH), S, SO, SO2, or CHNR7R8; ring A is optionally substituted with up to 4 substituents in addition to R1; R1 = (CH2)nCH(OR2)(CH2)mE, CH=C(OR2)(CH2)mE, (CH2)nCHY(CH2)mE, or CH=CY(CH2)mE; E=CO2R3, alkylnitrile, carboxamide, or (un) substituted sulfonamide, acylsulfonamide, or tetrazole; R2 = H, haloalkyl, COR4, CO2R4, CONR5R6, CSR4, CSOR4, CSNR5R6, or (un) substituted aliphatic group, aralkyl, or aryl; Y = 0, CH2, CH2CH2, or CH=CH bonded ortho to R1 on ring A; R3-R8 = independently H or (un) substituted aliphatic group or aryl; m and n = independently 0-2; or pharmaceutically acceptable salts, hydrates, stereoisomers, or solvates thereof) were prepared by solution phase and solid phase synthetic methods as peroxisome proliferator activated receptor (PPAR) modulators (no data). For example, (S)-2-methoxy-3hydroxyphenylpropanoic acid Et ester was treated with Ph triflimide to give the 4-trifluoromethanesulfonyloxyphenyl derivative (97%). Substitution with propargyl alc. in the presence of PdCl2(PPh3)2 and TEA in DMF afforded the 4-(3-hydroxyprop-1-ynyl)phenyl intermediate (32%), which was coupled with 4-phenylphenol using the Mitsunobu procedure to give II. Binding and cotransfection studies showed that many of the compds. of the invention are selective PPARγ agonists or PPARα/PPARγ co-agonists (no data). Thus, I are useful for the treatment of hyperglycemia, dyslipidemia, Type I or II diabetes, hypertriglyceridemia, syndrome X, insulin resistance, heart failure, diabetic dyslipidemia, hyperlipidemia, hypercholesteremia, hypertension, obesity, anorexia bulimia, polycystic ovarian syndrome, anorexia nervosa, cardiovascular disease or other diseases where insulin resistance is a component (no data).

IC ICM C07C059-68

ICS C07C059-90; C07C059-72; C07C239-12; C07D311-30; C07D307-91; C07C219-10; C07D213-30; C07D215-14; C07D295-08; C07C217-94; A61K031-192; A61K031-195; A61P009-00; A61P003-04; A61P003-06; A61P003-00

CC 25-17 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 1

IT 476436-68-7P, (2S)-2-Methoxy-3-[4-[3-(4-phenoxyphenoxy)propoxy]phenyl]prop anoic acid 477979-23-0P, (2S)-2-Methoxy-3-[4-[3-(4-phenoxyphenoxy)prop-1-

ynyl]phenyl]propionic acid 477979-24-1P, (2S)-3-[4-[3-(4-Fluorophenoxy)prop-1-ynyl]phenyl]-2-methoxypropionic acid 477979-25-2P, (2S) -2-Methoxy-3-[4-[3-(3-phenylbenzofuran-6-yloxy)prop-1ynyl]phenyl]propionic acid 477979-27-4P, (2S)-3-[4-[3-(4-Butylphenoxy)prop-1-ynyl]phenyl]-2-methoxypropionic acid 477979-28-5P, (2S) -2-Methoxy-3-[4-[3-[4-(4-trifluoromethylphenoxy)phenoxy]prop-1ynyl]phenyl]propionic acid 477979-29-6P, (2S)-2-Methoxy-3-[4-[3-[(9-oxo-9H-fluoren-2-yl)oxy]prop-1-ynyl]phenyl]propionic acid 477979-30-9P, (2S) - 2 - Methoxy - 3 - [4 - [3 - [(4 - oxo - 2 - pheny] - 4H - chromen - 7 - y]) oxy] prop - 1 ynyl]phenyl]propionic acid 477979-32-1P, (2S)-2-Methoxy-3-[4-[3-(3phenylaminophenoxy)prop-1-ynyl]phenyl]propionic acid 477979-34-3P, (2S) -2-Methoxy-3-[4-[3-[(4-oxo-2-phenyl-4H-chromen-6-yl)oxy]prop-1-477979-35-4P, (2S)-3-[4-[3-[3-(4ynyl]phenyl]propionic acid Fluorophenyl) benzofuran-6-yloxy] prop-1-ynyl] phenyl] -2-methoxypropionic 477979-37-6P, (2S)-2-Methoxy-3-[4-[3-[4-(1-methyl-1phenylethyl)phenoxy]prop-1-ynyl]phenyl]propionic acid 477979-38-7P, (2S) - 2 - Methoxy - 3 - [4 - [3 - [4 - (phenylacety]) phenoxy] prop - 1 ynyl]phenyl]propionic acid 477979-39-8P, (2S)-3-[4-[3-(4-Benzylphenoxy)prop-1-ynyl]phenyl]-2-methoxypropionic acid 477979-40-1P, (2S) -3-[4-[3-[4-[(2-Fluorophenyl) hydroxyiminomethyl] phenoxy] prop-1ynyl]phenyl]-2-methoxypropionic acid 477979-41-2P, (2S)-3-[4-[3-[4-[(Hydroxyimino)phenylmethyl)phenoxy]prop-1-ynyl]phenyl]-2-methoxypropionic acid 477979-42-3P, (2S)-3-[4-[3-[4-[(4-Fluorophenyl)hydroxyiminomethyl]p henoxy]prop-1-ynyl]phenyl]-2-methoxypropionic acid 477979-45-6P, (2S)-2-Methoxy-3-[4-[5-(4-phenoxyphenoxy)pent-1-ynyl]phenyl]propionic acid 477979-48-9P, (2S)-3-[4-[5-(4-Benzylphenoxy)pent-1-ynyl]phenyl]-2methoxypropionic acid 477979-51-4P, (2S)-2-Methoxy-3-[4-[5-[4-(4trifluoromethylphenoxy)phenoxy]pent-1-ynyl]phenyl]propionic acid 477979-52-5P, (2S)-2-Methoxy-3-[4-[5-[(4-oxo-2-phenyl-4H-chromen-7yl)oxy]pent-1-ynyl]phenyl]propionic acid 477979-53-6P, (2S) - 2 - Methoxy - 3 - [4 - [5 - [(4 - oxo - 2 - pheny] - 4H - chromen - 6 - yl) oxy] pent - 1 ynyl]phenyl]propionic acid 477979-54-7P, (2S)-2-Methoxy-3-[4-[5-[4-(1methyl-1-phenylethyl)phenoxy]pent-1-ynyl]phenyl]propionic acid 477979-55-8P, (2S)-2-Methoxy-3-[4-[5-[(9-oxo-9H-fluoren-2-yl)oxy]pent-1-477979-56-9P, (2S)-2-Methoxy-3-[4-[5-(3ynyl]phenyl]propionic acid phenylaminophenoxy)pent-1-ynyl]phenyl]propionic acid 477979-58-1P, (2S) -2-Methoxy-3-[4-[5-(3-phenylbenzofuran-6-yloxy)pent-1ynyl]phenyl]propionic acid 477979-59-2P, (2S)-3-[4-[5-[3-(4-Fluorophenyl) benzofuran-6-yloxy] pent-1-ynyl] phenyl] -2-methoxypropionic 477979-60-5P, (2S)-2-Methoxy-3-[4-[5-(4-phenylacetylphenoxy)pent-1ynyl]phenyl]propionic acid 477979-61-6P, (2S)-3-[4-[5-(4-Butylphenoxy)pent-1-ynyl]phenyl]-2-methoxypropionic acid (2S)-3-[4-[5-[4-[(2-Fluorophenyl)hydroxyiminomethyl]phenoxy]pent-1ynyl]phenyl]-2-methoxypropanoic acid 477979-63-8P, (2S)-3-[4-[5-[4-[(4-Fluorophenyl) hydroxyiminomethyl] -phenoxy]pent-1-ynyl]phenyl]-2methoxypropionic acid 477979-64-9P, (2S)-3-[4-[5-[4-[(Hydroxyimino)phenylmethyl]phenoxy]pent-1-ynyl]phenyl]-2-methoxypropionic 477979-65-0P, (2S)-3-[4-[4-(Biphenyl-4-yloxy)but-1-ynyl]phenyl]-2-477979-68-3P, (2S)-2-Methoxy-3-[4-[4-(4methoxypropionic acid phenoxyphenoxy)but-1-ynyl]phenyl]propionic acid 477979-73-0P, (2S) -3-[4-[4-[4-[(Hydroxyimino)phenylmethyl]phenoxy]but-1-ynyl]phenyl]-2methoxypropionic acid 477979-74-1P, (2S)-3-[4-[4-[4-(4-Fluorobenzoyl)phenoxy]but-1-ynyl]phenyl]-2-methoxypropionic acid 477979-75-2P, (2S)-3-[4-[4-[3-(4-Fluorophenyl)benzofuran-6-yloxy]but-1ynyl]phenyl]-2-methoxypropionic acid 477979-76-3P, (2S)-2-Methoxy-3-[4-[4-[4-(4-trifluoromethylphenoxy)phenoxy]but-1-ynyl]phenyl]propionic acid 477979-77-4P, (2S)-2-Methoxy-3-[4-[4-[(4-oxo-2-phenyl-4H-chromen-7yl)oxy]but-1-ynyl]phenyl]propionic acid 477979-78-5P, (2S) - 2 - Methoxy - 3 - [4 - [4 - [4 - (4 - oxo - 2 - phenyl - 4H - chromen - 6 - yl) oxy] but - 1 -

ynyl]phenyl]propionic acid 477979-82-1P, (2S)-3-[4-[6-(4-Benzoylphenoxy)hex-1-ynyl]phenyl]-2-methoxypropionic acid 477979-83-2P, (2S)-3-[4-[6-(Biphenyl-4-yloxy)hex-1-ynyl]phenyl]-2-methoxypropionic acid 477979-85-4P, (2S)-3-[4-[5-(4-Benzoylphenoxy)pentanoyl]phenyl]-2methoxypropionic acid 477979-86-5P, (2S)-2-Methoxy-3-[4-[5-(4phenoxyphenoxy)pentanoyl]phenyl]propionic acid 477979-87-6P, (2S)-3-[4-[4-(4-Benzoylphenoxy)butyryl]phenyl]-2-methoxypropionic acid 477979-89-8P, (2S)-2-Methoxy-3-[4-[4-(4-phenoxyphenoxy)butyryl]phenyl]prop 477979-90-1P, (2S)-3-[4-[4-(Biphenyl-4-yloxy)butyryl]phenyl]-2-methoxypropionic acid 477979-91-2P, (2S)-3-[4-[6-(Biphenyl-4yloxy)hexanoyl]phenyl]-2-methoxypropionic acid 477979-92-3P, (2S)-2-Methoxy-3-[4-[6-(4-phenoxyphenoxy)hexanoyl]phenyl]propionic acid 477979-93-4P, (2S)-3-[4-[6-(4-Benzoylphenoxy)hexanoyl]phenyl]-2methoxypropionic acid 477979-94-5P, (2S)-3-[4-[5-(Biphenyl-4-yloxy)-1-(hydroxyimino)pentyl]phenyl]-2-methoxypropionic acid 477979-95-6P 477979-98-9P 477980-01-1P 477980-02-2P 477980-03-3P 477980-04-4P 477980-05-5P 477980-06-6P 477980-07-7P 477980-08-8P 477980-09-9P 477980-10-2P 477980-15-7P, (2S)-2-Methoxy-3-[4-[2-oxo-3-(4phenoxyphenoxy)propoxy]phenyl]propionic acid 477980-16-8P, (2S) -2-Methoxy-3-[4-[3-(4-phenoxyphenoxymethyl)benzyloxy]phenyl]propionic 477980-17-9P, (2S)-2-Methoxy-3-[4-[2-(4phenoxyphenoxymethyl)benzyloxy]phenyl]propionic acid 477980-18-0P, (2S) -2-Methoxy-3-[4-[3-(4-phenoxyphenoxy)phenoxy]phenyl]propionic acid 477980-19-1P, (2S)-3-[3'-(3-Benzoylphenoxymethyl)biphenyl-4-yl]-2methoxypropionic acid 477980-21-5P, (2S)-3-[4'-(4-Benzoylphenoxymethyl)biphenyl-4-yl]-2-methoxypropionic acid 477980-25-9P 477980-28-2P 477980-26-0P 477980-27-1P 477980-29-3P 477980-30-6P 477980-39-5P 477980-40-8P 477980-34-0P 477980-41-9P 477980-42-0P, (2S)-3-[4-[3-(4-Benzoylphenoxy)propoxy]phenyl]-2-methoxypropionic acid 477980-47-5P, (2S)-3-[4-[3-(4-Benzylphenoxy)propoxy]phenyl]-2methoxypropionic acid 477980-48-6P, (2S)-2-Methoxy-3-[4-[3-(3phenylaminophenoxy)propoxy]phenyl]propionic acid 477980-49-7P, (2S) -3-[4-[3-(4-Butylphenoxy)propoxy]phenyl]-2-methoxypropionic acid 477980-50-0P, (2S)-3-[4-[3-[4-(2-Fluorobenzoyl)phenoxy]propoxy]phenyl]-2methoxypropionic acid 477980-51-1P, (2S)-2-Methoxy-3-[4-[3-(9-oxo-9Hfluoren-2-yloxy)propoxy]phenyl]propionic acid 477980-52-2P, (2S) -2-Methoxy-3-[4-[3-[(2-methylbenzothiazol-5yl)oxy]propoxy]phenyl]propionic acid 477980-53-3P, (2S)-2-Methoxy-3-[4-[3-[3-(morpholin-4-yl)phenoxy]propoxy]phenyl]propionic acid 477980-54-4P, (2S)-3-[4-[3-(Biphenyl-2-yloxy)propoxy]phenyl]-2methoxypropionic acid 477980-55-5P, (2S)-3-[4-[2-(4-Benzoylphenoxy)ethoxy]phenyl]-2-methoxypropionic acid 477980-57-7P, (2S) -3-[4-[2-(Biphenyl-4-yloxy)ethoxy]phenyl]-2-methoxypropionic acid 477980-58-8P, (2S)-3-[4-[2-(Biphenyl-4-yloxy)acetyl]phenyl]-2-477980-62-4P, (2S)-2-Methoxy-3-[4-[2-(4methoxypropionic acid phenoxyphenoxy)acetyl]phenyl]propionic acid 477980-63-5P, (2S) -3-[4-[2-(4-Benzoylphenoxy)acetyl]phenyl]-2-methoxypropionic acid 477980-64-6P, (2S)-3-[4-[3-(Biphenyl-4-yloxy)propyl]phenyl]-2-477980-65-7P, (2S)-3-[4-[4-(Biphenyl-4methoxypropionic acid yloxy)butyl]phenyl]-2-methoxypropionic acid 477980-67-9P, (2S) -3-[4-[5-(Biphenyl-4-yloxy)pentyl]phenyl]-2-methoxypropionic acid 477980-68-0P, 3-[4-[3-(4-Benzoylphenoxy)propoxy]-3-methoxyphenyl]propionic 477980-73-7P, 3-[4-[3-[4-(4-Fluorobenzoyl)phenoxy]propoxy]-3methoxyphenyl]-2-methoxypropionic acid 477980-75-9P, 3-[4-[3-(Biphenyl-4-yloxy)propoxy]-3-methoxyphenyl]-2-methoxypropionic acid 477980-78-2P, 2-Methoxy-3-[3-methoxy-4-[3-(4phenoxyphenoxy)propoxy]phenyl]propionic acid 477980-79-3P, (2S) -3-[4-[3-(Biphenyl-4-yloxy)propoxy]-3-chlorophenyl]-2-methoxypropionic 477980-83-9P, 3-[4-[3-(Biphenyl-4-yloxy)propoxy]-3-fluorophenyl]-2acid

methoxypropionic acid 477980-89-5P, 3-[4-[3-(Biphenyl-4yloxy)propoxy]-3-trifluoromethylphenyl]-2-methoxypropionic acid 477980-94-2P, (2S)-3-[6-[3-(Biphenyl-4-yloxy)propoxy]-4'-methoxybiphenyl-3yl]-2-methoxypropionic acid 477980-98-6P, 3-[6-[3-(Biphenyl-4yloxy)propoxy]-4'-fluorobiphenyl-3-yl]-2-methoxypropionic acid 477980-99-7P, 3-[4-[3-(Biphenyl-4-yloxy)propoxy]-2-methylphenyl]-2methoxyacrylic acid 477981-03-6P, 3-[4-[3-(Biphenyl-4-yloxy)propoxy]-2methylphenyl]-2-methoxypropionic acid 477981-05-8P, 3-[3-[3-(Biphenyl-4yloxy)propoxy]phenyl]-2-methoxypropionic acid 477981-06-9P, 2-Methoxy-3-[3-[3-(4-phenoxyphenoxy)propoxy]phenyl]propionic acid 477981-08-1P, 3-[3-[3-(4-Benzoylphenoxy)propoxy]phenyl]-2-methoxypropionic 477981-10-5P, 2-Methoxy-3-[3-[5-(4-phenoxyphenoxy)pentyl]phenyl]pro pionic acid 477981-11-6P, (2S)-2-Methoxy-3-[4-[3-[4-[4-(piperidin-1yl)benzoyl]phenoxy]propoxy]phenyl]propionic acid 477981-13-8P, (2S) -2-Methoxy-3-[4-[3-[4-[4-(morpholin-4-yl)benzoyl]phenoxy]propoxy]pheny l]propionic acid 477981-16-1P, (2S)-3-[4-[3-[4-[(Hydroxyimino)](4hydroxyphenyl)methyl]phenoxy]propoxy]phenyl]-2-methoxypropionic acid 477981-17-2P, (2S)-3-[4-[3-(4-Benzoyl-3-hydroxyphenoxy)propoxy]phenyl]-2methoxypropionic acid 477981-19-4P, (2S)-3-[4-[3-[4-(2,4-Dimethoxybenzoyl)phenoxy]propoxy]phenyl]-2-methoxypropionic acid 477981-22-9P, 3-[4-[3-(4-Benzylphenoxy)propoxy]-3-methoxyphenyl]-2methoxypropionic acid 477981-24-1P, (S)-3-(4-Benzyloxyphenyl)-2isopropoxypropionic acid 477981-29-6P, 2S-2-Isopropoxy-3-[4-[3-(4phenoxyphenoxy)propoxy]phenyl]propanoic acid sodium salt 477981-35-4P 477981-37-6P, 3-[4-[3-(4-Butoxyphenoxy)propoxy]-3-methoxyphenyl]-2-477981-38-7P, 2-Methoxy-3-[3-methoxy-4-[3-(4-oxo-2methoxypropionic acid phenyl-4H-chromen-6-yloxy)propoxy]phenyl]propionic acid 477981-39-8P, 2-Methoxy-3-[3-methoxy-4-[3-[4-(4-trifluoromethylphenoxy)phenoxy]propoxy]p henyl]propionic acid 477981-40-1P, 3-[4-[3-(4-Benzyloxyphenoxy)propoxy]-3-methoxyphenyl]-2-methoxypropionic acid 477981-41-2P, 3-[4-[3-[4-(Dibenzofuran-3-yl)phenoxy]propoxy]-3-methoxyphenyl]-2methoxypropionic acid 477981-43-4P, (2S)-3-[4-[4-(Biphenyl-4yloxy)butoxy]phenyl]-2-methoxypropionic acid 477981-44-5P, (2S) -3-[4-[4-(4-Benzoylphenoxy)butoxy]phenyl]-2-methoxypropionic acid 477981-46-7P, (2S)-2-Methoxy-3-[4-[4-(4-phenoxyphenoxy)butoxy]phenyl]propi 477981-47-8P, (2S)-2-Methoxy-3-[4-[2-(2,3,6trifluorophenoxy)ethoxy]phenyl]propionic acid 477981-49-0P, (2S) -3-[4-(3-Benzyloxybenzyloxy)phenyl]-2-methoxypropionic acid 477981-52-5P, 3-[4-[3-(Biphenyl-4-yloxy)propoxy]-2-methoxyphenyl]-2methoxypropionic acid 477981-54-7P, 3-[4-[3-(4-Benzoylphenoxy)propoxy]-2methoxyphenyl]-2-methoxypropionic acid 477981-58-1P, 2-Methoxy-3-[2-methoxy-4-[3-(4-phenoxyphenoxy)propoxy]phenyl]propionic acid 477981-63-8P, 3-[2-Chloro-4-[3-(4-phenoxyphenoxy)propoxy]phenyl]-2methoxypropionic acid 477981-67-2P, (2S)-4-[3-[4-(2-Carboxy-2methyloxyethyl)phenoxy]propoxy]benzoic acid 477981-69-4P, (2S) -3-[4-[3-[4-(Dibenzothiophen-4-yl)phenoxy]propoxy]phenyl]-2methoxypropanoic acid 477981-72-9P, (2S)-3-[4-[3-(4'-Hydroxybiphenyl-4-. yloxy)propoxy]phenyl]-2-methoxypropionic acid 477981-73-0P, (2S) -4'-[3-[4-(2-Carboxy-2-methoxyethyl) phenoxy] propoxy] biphenyl-4carboxylic acid 477981-74-1P 477981-75-2P 477981-76-3P, (2S) -3-[4-[3-[3-(4-Fluorophenyl)benzofuran-6-yloxy]propoxy]phenyl]-2methoxypropionic acid 477981-77-4P, (2S)-2-Methoxy-3-[4-[3-(5,6,7,8tetrahydronaphthalen-2-yloxy)propoxy]phenyl]propionic acid 477981-78-5P, (2S) -3-[4-[3-(4-Benzyloxyphenoxy)propoxy]phenyl]-2-methoxypropionic acid 477981-79-6P, (2S)-3-[4-[3-(4-Butoxyphenoxy)propoxy]phenyl]-2methoxypropionic acid 477981-80-9P, (2S)-3-[4-[3-(4-Heptyloxyphenoxy)propoxy]phenyl]-2-methoxypropionic acid 477981-81-0P, (2S)-3-[4-[3-(6-Benzoylnaphthalen-2-yloxy)propoxy]phenyl]-2methoxypropionic acid 477981-82-1P, (2S)-3-[4-[3-(Benzo[1,3]dioxo]-5yloxy)propoxy]phenyl]-2-methoxypropionic acid 477981-83-2P, (2S) -3-[4-[3-(9H-Fluoren-2-yloxy)propoxy]phenyl]-2-methoxypropionic acid 477981-84-3P, (2S)-2-Methoxy-3-[4-[3-(4-octylphenoxy)propoxy]phenyl]propio 477981-85-4P, (2S)-2-Methoxy-3-[4-[3-(naphthalen-1yloxy)propoxy}phenyl]propionic acid 477981-86-5P, (2S) -3-[4-[3-(1H-Indol-7-yloxy)propoxy]phenyl]-2-methoxypropionic acid 477981-87-6P, (2S)-3-[4-[3-(4'-Fluorobiphenyl-4-yloxy)propoxy]phenyl]-2methoxypropionic acid 477981-88-7P, (2S)-3-[4-[3-(4'-Chlorobiphenyl-4yloxy)propoxy]phenyl]-2-methoxypropionic acid 477981-89-8P, (25S)-3-[4-[3-[3',5'-Bis(trifluoromethyl)biphenyl-4-yloxy]propoxy]phenyl]-2-methoxypropionic acid 477981-90-1P, (2S)-3-[4-[3-[4-(Dibenzofuran-4yl)phenoxy]propoxy]phenyl]-2-methoxypropionic acid 477981-91-2P, (2S) -2-Methoxy-3-[4-[3-(4'-phenoxybiphenyl-4-yloxy)propoxy]phenyl]propioni 477981-92-3P, (2S)-2-Methoxy-3-[4-[3-[4-(thiophen-2yl)phenoxy]propoxy]phenyl]propionic acid 477981-93-4P, (2S) -3-[4-[3-(3'-Chlorobiphenyl-4-yloxy)propoxy]phenyl]-2-methoxypropionic 477981-94-5P, (2S)-3-[4-[3-(2'-Chlorobiphenyl-4yloxy)propoxy]phenyl]-2-methoxypropionic acid 477981-95-6P, (2S) -3-[4-[3-(2'-Fluorobiphenyl-4-yloxy)propoxy]phenyl]-2-methoxypropionic 477981-96-7P, (2S)-3-[4-[3-[4-(Benzo[1,3]dioxol-5yl)phenoxy[propoxy]phenyl]-2-methoxypropionic acid 477981-97-8P, (2S) -3-[4-[3-(4'-tert-Butylbiphenyl-4-yloxy)propoxy]phenyl]-2-477981-98-9P, (2S)-2-Methoxy-3-[4-[3-[3'methoxypropionic acid (trifluoromethoxy)biphenyl-4-yloxy]propoxy]phenyl]propionic acid 477981-99-0P, (2S)-2-Methoxy-3-[4-[3-[4'-(trifluoromethoxy)biphenyl-4yloxy]propoxy]phenyl]propionic acid 477982-00-6P, (2S)-3-[4-[3-[4-(2-Chlorobenzoylamino)phenoxy]propoxy]phenyl]-2-methoxypropionic acid 477982-01-7P, (2S)-2-Methoxy-3-[4-[3-[4-(2-methoxybenzoylamino)phenoxy]pro 477982-02-8P, (2S)-3-[4-[3-[4-(2,2poxy]phenyl]propionic acid Dimethylpropionylamino)phenoxy]propoxy]phenyl]-2-methoxypropionic acid 477982-03-9P, (2S)-3-[4-[3-[4-(3-Fluorobenzoylamino)phenoxy]propoxy]phenyl ]-2-methoxypropionic acid 477982-04-0P, (2S)-2-Methoxy-3-[4-[3-[4-(3methoxybenzoylamino)phenoxy]propoxy]phenyl]propionic acid 477982-05-1P, (2S) -2-Methoxy-3-[4-[3-[4-(3-methylbenzoylamino)phenoxy]propoxy]phenyl]pro 477982-06-2P, (2S)-3-[4-[3-[4-(4-Fluorobenzoylamino) phenoxy] propoxy] phenyl] -2-methoxypropionic acid 477982-07-3P, (2S)-3-[4-[3-[4-(4-Chlorobenzoylamino)phenoxy]propoxy]phenyl 477982-08-4P, (2S)-2-Methoxy-3-[4-[3-[4-(4-]-2-methoxypropionic acid methoxybenzoylamino)phenoxy]propoxy]phenyl]propionic acid 477982-09-5P 477982-10-8P, (2S)-3-[4-[3-[4-(2-Chlorobenzoyl)phenoxy]propoxy]phenyl]-2methoxypropionic acid 477982-11-9P, (2S)-2-Methoxy-3-[4-[3-[4-(naphthalene-1-carbonyl)phenoxy]propoxy]phenyl]propionic acid 477982-12-0P, (2S)-3-[4-[3-[4-(3-Fluorobenzoyl)phenoxy]propoxy]phenyl]-2methoxypropionic acid 477982-13-1P, (2S)-2-Methoxy-3-[4-[3-[4-(3methoxybenzoyl)phenoxy]propoxy]phenyl]propionic acid 477982-14-2P, (2S) -2-Methoxy-3-[4-[3-[4-(naphthalene-2-carbonyl)phenoxy]propoxy]phenyl]p 477982-15-3P, (2S)-2-Methoxy-3-[4-[3-[4-(4ropionic acid methylbenzoyl)phenoxy]propoxy]phenyl]propionic acid 477982-16-4P, (2S) -3-[4-[3-[4-(2,2-Dimethylpropionyl)phenoxy]propoxy]phenyl]-2-477982-17-5P, (2S)-3-[4-[3-(4methoxypropionic acid Isobutyrylphenoxy)propoxy]phenyl]-2-methoxypropionic acid 477982-18-6P, (2S) -2-Methoxy-3-[4-[3-[4-(3-phenylpropionyl)phenoxy]propoxy]phenyl]propio 477982-19-7P, 3-[4-[3-(Biphenyl-4-yloxy)propoxy]-2-477982-23-3P, 2-Phenoxy-3-[4-[3-(4fluorophenyl] -2-methoxypropionic acid phenoxyphenoxy)propoxy]phenyl]propanoic acid .477982-26-6P 477982-31-3P, (2S)-2-Methoxy-3-[4-[2-methyl-3-(4phenoxyphenoxy)propoxy]phenyl]propionic acid 477982-34-6P, (2S)-3-[4-(3-Benzyloxypropoxy)phenyl]-2-methoxypropionic acid 477982-35-7P 477982-36-8P, (2S)-2-Ethoxy-3-[4-[3-(4-

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477982-39-1P,
    phenoxyphenoxy)propoxy]phenyl]propionic acid
     (2S)-2-Benzyloxy-3-[4-[3-(4-phenoxyphenoxy)propoxy]phenyl]propionic acid
    477982-43-7P, (2S)-3-[4-[3-[4-[4-(2-Hydroxyethoxy)benzoy1]phenoxy]propoxy]
    phenyl]-2-methoxypropionic acid
                                      477982-44-8P, (2S)-3-[4-[3-(4-
    Phenoxyphenoxy)propoxy]phenyl]-2-propoxypropionic acid
                                                              477982-48-2P,
     (2S) -3-[4-[3-(4-Benzoylphenoxy)propoxy]phenyl]-2-ethoxypropionic acid
    477982-50-6P, (2S)-3-[4-[3-(4-Benzylphenoxy)propoxy]phenyl]-2-
    ethoxypropionic acid
                           477982-52-8P, (2S)-3-[4-[3-(4-
    Benzoylphenoxy)propoxy]-3-chlorophenyl]-2-ethoxypropionic acid
    477982-55-1P, (2S)-4'-[3-[4-(2-Carboxy-2-methoxyethyl)-2-
    methoxyphenoxy]propoxy]biphenyl-4-carboxylic acid
                                                        477982-58-4P,
     (2S) -3-[4-[3-(4'-tert-Butylbiphenyl-4-yloxy) propoxy] -2-methoxyphenyl] -2-
    methoxypropionic acid
                             477982-62-0P, (2S)-3-[4-[3-[4-(4-
    Hydroxyphenoxy)phenoxy]propoxy]phenyl]-2-methoxypropionic acid
    477982-63-1P, (2S)-2-Methoxy-3-[4-[3-[4-(2,2,3,3-
    tetrafluoropropoxy)phenoxy]propoxy]phenyl]propionic acid
     (2S) -2-Methoxy-3-[4-[3-[4-(3-methylbutoxy)phenoxy]propoxy]phenyl]propionic
           477982-71-1P, (2S)-3-[4-[3-(4-Isobutoxyphenoxy)propoxy]phenyl]-2-
    methoxypropionic acid
                            477982-72-2P, (2S)-3-[4-[3-(4-
    Isopropoxyphenoxy)propoxy]phenyl]-2-methoxypropionic acid
, (2S)-3-[4-[3-(4-Cyclohexylmethoxyphenoxy)propoxy]phenyl]-2-methoxypropionic
           477982-74-4P, (2S)-2-Methoxy-3-[4-[3-(4-
    phenethyloxyphenoxy)propoxy]phenyl]propionic acid
                                                         477982-75-5P,
     (2S) -3-[4-[3-[4-(3-Dimethylaminopropoxy)phenoxy]propoxy]phenyl]-2-
    methoxypropionic acid
                             477982-76-6P, (2S)-3-[4-[3-(4-
    Carboxymethoxyphenoxy)propoxy]phenyl]-2-methoxypropionic acid
    477982-77-7P, (2S)-3-[4-[3-[4-(1H-Indol-5-yl)phenoxy]propoxy]phenyl]-2-
    methoxypropionic acid
                            477982-80-2P, (2S)-2-Methoxy-3-[4-[3-[4-(pyridin-3-
    yl)phenoxy]propoxy]phenyl]propionic acid
                                               477982-81-3P
    (2S) -2-Methoxy-3-[4-[3-[4-(pyridin-4-yl)phenoxy]propoxy]phenyl]propionic
           477982-82-4P, (2S)-2-Methoxy-3-[4-[3-[4-(quinolin-8-
    yl)phenoxy|propoxy|phenyl|propionic acid
                                               477982-83-5P,
    (2S) -3-[4-[3-(4'-Cyanobiphenyl-4-yloxy)propoxy]phenyl]-2-methoxypropionic
           477982-85-7P, (2S)-2-Methoxy-3-[4-[3-[[4'-(1H-tetrazol-5-
    yl)biphenyl-4-yl]oxy]propoxy]phenyl]propionic acid
                                                        477982-87-9P,
    (2S) -3-[4-[3-[4-(Imidazol-1-yl)phenoxy]propoxy]phenyl]-2-methoxypropionic
           477982-88-0P, (2S)-3-[4-[3-[4-(1,3-Dioxo-1,3-dihydroisoindol-2-
    yl)phenoxy]propoxy]phenyl]-2-methoxypropionic acid
                                                         477982-89-1P,
    (2S) -3-[4-[3-[4-(4-Acetylpiperazin-1-y1)phenoxy]propoxy]pheny1]-2-
    methoxypropionic acid
                            477982-90-4P, (2S)-2-Methoxy-3-[4-[3-[4-(piperazin-
    1-yl)phenoxy]propoxy]phenyl]propionic acid
                                                  477982-92-6P
    (2S) -2-Methoxy-3-[4-[3-[4-(morpholin-4-yl)phenoxy]propoxy]phenyl]propionic
    acid
           477982-96-0P, 3-[4-[3-(4-Benzoylphenoxy)propoxy]-2-chlorophenyl]-2-
    ethoxypropionic acid
                           477982-98-2P, (2S)-2-Methoxy-3-[4-[3-(3-
    trifluoromethylphenoxy)propoxy]phenyl]propionic acid
                                                           477982-99-3P,
    (2S) -2-Methoxy-3-[4-(3-phenoxypropoxy)phenyl]propionic acid
    477983-00-9P, (2S)-3-[4-[3-(Biphenyl-3-yloxy)propoxy]phenyl]-2-
    methoxypropionic acid
                            477983-01-0P, 2-Methoxy-3-[4-[2-(4-
    phenoxyphenoxy)ethoxy]phenyl]propionic acid 477983-08-7P,
    (2S) -3-[4-[3-(2-Cyanophenoxy)propoxy]phenyl]-2-methoxypropionic acid
    477983-09-8P, (2S)-2-Methoxy-3-[4-[3-(2-methoxyphenoxy)propoxy]phenyl]prop
    ionic acid
                 477983-10-1P, (S)-2-[3-[4-(2-Carboxy-2-
    methoxyethyl)phenoxy]propoxy]benzoic acid
                                                 477983-11-2P,
    (2S) -3-[4-[3-(3-Cyanophenoxy) propoxy] phenyl] -2-methoxypropionic acid
    477983-12-3P, (2S)-3-[4-[3-(3-Dimethylaminophenoxy)propoxy]phenyl]-2-
   methoxypropionic acid
                           477983-13-4P, (2S)-3-[3-[4-(2-Carboxy-2-
    methoxyethyl)phenoxy]propoxy]benzoic acid
                                                 477983-14-5P,
    (2S)-3-[4-[3-[(Indan-5-y1)oxy]propoxy]phenyl]-2-methoxypropionic acid
    477983-15-6P, (2S)-2-Methoxy-3-[4-[3-(naphthalen-2-
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(2S) -2-Methoxy-3-[4-[3-(quinolin-6-yloxy)propoxy]phenyl]propionic acid

yloxy)propoxy]phenyl]propionic acid

5-yloxy)propoxy]phenyl]-2-methoxypropionic acid

477983-16-7P, (2S)-3-[4-[3-(1H-Indol-

477983-17-8P,

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477983-18-9P, (2S)-2-Methoxy-3-[4-[3-(3-methoxyphenoxy)propoxy]phenyl]prop
                  477983-19-0P, (2S)-3-[4-[3-(3-Fluorophenoxy)propoxy]phenyl]-2-
     methoxypropionic acid
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (PPAR modulator; preparation of substituted (phenyl) (alkoxy) propanoic acids
        and analogs as PPAR modulators for treatment of diabetes and related
        conditions)
IT
     348-27-6P, 2-Fluoro-4-hydroxybenzaldehyde
                                                 405-05-0P,
                                    627-18-9P, 3-Bromopropan-1-ol
     3-Fluoro-4-hydroxybenzaldehyde
     1073-05-8P, [1,3,2]Dioxathiane 2,2-dioxide
                                                  2973-78-6P,
     3-Bromo-4-hydroxybenzaldehyde
                                    3351-60-8P, 4-(2-Bromoethoxy) biphenyl
     16251-33-5P, 1-Bromo-3-(4-phenoxyphenyl)propane
                                                       19070-95-2P,
     2-(Biphenyl-4-yloxy)ethanol
                                 23418-85-1P, Toluene-4-sulfonic acid
                        29169-19-5P
     but-3-ynyl ester
                                      54334-74-6P, (Biphenyl-4-yloxy) acetic
                        63457-51-2P, 1-(3-Bromopropoxy)-4-phenoxybenzene
     acid ethyl ester
     69455-12-5P, 4-Benzyloxy-3-bromobenzaldehyde
                                                   87545-48-0P,
     4-(2-Bromoethoxy) phenoxybenzene
                                       96363-80-3P, Methanesulfonic acid
                                  102229-10-7P, 2-(tert-
     3-dimethylaminopropyl ester
     Butyldimethylsilanyloxy) ethanol
                                       111915-33-4P, 4-(2,2,3,3-
                               113795-28-1P, 4-(3-Bromopropoxy) biphenyl
     Tetrafluoropropoxy) phenol
     119437-35-3P, 1-Chloro-3-(4-phenoxyphenyl)propane
                                                         128316-64-3P,
     3-(4-Benzyloxyphenyl)-2-hydroxypropanoic acid methyl ester
                                                                  156335-14-7P,
     Methyl 3-(4-hydroxyphenyl)-2-methoxypropanoate
                                                     156335-15-8P,
     2-Ethoxy-3-(4-hydroxyphenyl)propionic acid methyl ester
                                                               156659-87-9P,
     (2S, 4S) -4-(tert-Butyldimethylsilanyloxy)pentan-2-ol
                                                           162919-37-1P
     173025-78-0P, 3-(Biphenyl-4-yloxy)propan-1-ol
                                                     183612-97-7P,
     (1R*,3S*)-3-(tert-Butyldimethylsilanyloxy)cyclopentanol
                                                               183795-20-2P,
     trans-3-(tert-Butyldimethylsilanyloxy)cyclopentanol
                                                           211617-68-4P
     222835-03-2P, 3-(4-Benzyloxyphenyl)-2-ethoxyacrylic acid ethyl ester
     223126-28-1P, 3-(4-Benzyloxyphenyl)-2-ethoxypropionic acid ethyl ester
     251978-39-9P, 3-(4-Hydroxyphenyl)-2-phenoxypropanoic acid methyl ester
     267228-40-0P, (S)-3-(4-Benzyloxyphenyl)-2-hydroxypropionic acid ethyl
            267228-41-1P, (2S)-2-Hydroxy-3-(4-hydroxyphenyl)propionic acid
     ethyl ester
                  325827-53-0P, (S)-3-(4-Hydroxyphenyl)-2-isopropoxypropionic
                        361576-28-5P, 3-(4-Benzyloxyphenyl)-2-ethoxy-3-
     acid ethyl ester
    hydroxypropionic acid ethyl ester
                                        477979-19-4P, (2S)-2-Methoxy-3-(4-
     trifluoromethanesulfonyloxyphenyl)propionic acid ethyl ester
     477979-21-8P, (2S)-3-[4-(3-Hydroxyprop-1-ynyl)phenyl]-2-methoxypropionic
                        477979-26-3P, (2S)-3-[4-(3-Chloroprop-1-ynyl)phenyl]-2-
     acid ethyl ester
                                        477979-44-5P, (2S)-3-[4-(5-Hydroxypent-
    methoxypropionic acid ethyl ester
     1-ynyl)phenyl]-2-methoxypropionic acid ethyl ester
                                                          477979-49-0P,
     3-[4-(5-Bromopent-1-ynyl)phenyl]-2-methoxypropionic acid ethyl ester
    477979-66-1P, 4-But-3-ynyloxybiphenyl
                                            477979-67-2P, (2S)-3-[4-[4-
     (Biphenyl-4-yloxy)but-1-ynyl]phenyl]-2-methoxypropionic acid ethyl ester
    477979-69-4P, 1-(But-3-ynyloxy)-4-phenoxybenzene
                                                        477979-71-8P,
     [4-(But-3-ynyloxy)phenyl]phenylmethanone
                                                477979-72-9P,
     (2S) -3-[4-[4-(4-Benzoylphenoxy)but-1-ynyl]phenyl]-2-methoxypropionic acid
    ethyl ester
                  477979-80-9P, (2S)-3-[4-(6-Hydroxyhex-1-ynyl)phenyl]-2-
    methoxypropionic acid ethyl ester
                                       477979-88-7P, (2S)-3-[4-[4-(4-
    Benzoylphenoxy)butyryl]phenyl]-2-methoxypropionic acid ethyl ester
    477979=96=7P; cis-2-(tert-Butyldimethylsilanyloxy)cyclopentanol `
    477979-97-8P
                   477979-99-0P
                                   477980-00-0P
                                                  477980-11-3P,
     (2R,3S)-3-(4-Phenoxyphenoxy)butan-2-ol
                                             477980-12-4P
                                                             477980-13-5P
    477980-20-4P, (2S)-3-(3'-Hydroxymethylbiphenyl-4-yl)-2-methoxypropionic
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acid ethyl ester
                   477980-23-7P 477980-24-8P
                                                 477980-35-1P
477980-36-2P, 3-(Biphenyl-4-yloxy)cyclohexanol
                                                 477980-37-3P,
(trans) -3-(Biphenyl-4-yloxy)cyclohexanol
                                           477980-38-4P,
(cis) -3 - (Biphenyl-4-yloxy) cyclohexanol
                                         477980-44-2P,
(2S)-3-[4-(tert-Butyldimethylsilanyloxy)phenyl]-2-methoxypropionic acid
477980-45-3P, (2S)-3-[4-(3-Hydroxypropoxy)phenyl]-2-methoxypropionic acid
477980-56-6P, (2S)-3-[4-(2-Hydroxyethoxy)phenyl]-2-methoxypropanoic acid
477980-59-9P, (2S)-3-(4-Ethynylphenyl)-2-methoxypropionic acid ethyl ester
477980-60-2P, (2S)-3-(4-Acetylphenyl)-2-methoxypropionic acid ethyl ester
477980-61-3P, (2S)-3-[4-(2-Bromoacetyl)phenyl]-2-methoxypropionic acid
             477980-66-8P, (2S)-3-[4-(4-Hydroxybutyl)phenyl]-2-
methoxypropionic acid ethyl ester
                                   477980-69-1P, 3-(4-Benzyloxy-3-
methoxyphenyl)-3-hydroxy-2-methóxypropionic acid methyl ester
477980-70-4P, 3-(4-Hydroxy-3-methoxyphenyl)-2-methoxypropionic acid methyl
        477980-71-5P, 3-(4-Hydroxy-3-methoxyphenyl)-2-methoxypropionic
       477980-72-6P, 3-[4-(tert-Butyldimethylsilanyloxy)-3-methoxyphenyl]-
                         477980-76-0P, 3-(4-Hydroxy-3-methoxyphenyl)-2-
2-methoxypropionic acid
methoxypropionic acid ethyl ester
                                   477980-77-1P, 3-[4-[3-(Biphenyl-4-
yloxy)propoxy]-3-methoxyphenyl]-2-methoxypropionic acid ethyl ester
477980-80-6P, (2S)-3-(3-Chloro-4-hydroxyphenyl)-2-methoxypropionic acid
             477980-82-8P, (2S)-3-[4-[3-(Biphenyl-4-yloxy)propoxy]-3-
ethyl ester
chlorophenyl]-2-methoxypropionic acid ethyl ester
                                                     477980-84-0P,
2-(3-Fluoro-4-methoxyphenyl)-[1,3]dioxolane 477980-85-1P,
4-[1,3]Dioxolan-2-yl-2-fluorophenol
                                      477980-86-2P, 4-[3-(Biphenyl-4-
                                      477980-87-3P, 3-[4-[3-(Biphenyl-4-
yloxy)propoxy]-3-fluorobenzaldehyde
yloxy)propoxy]-3-fluorophenyl]-3-hydroxy-2-methoxypropionic acid methyl
        477980-88-4P, 3-[4-[3-(Biphenyl-4-yloxy)propoxy]-3-fluorophenyl]-2-
methoxypropionic acid methyl ester 477980-90-8P,
4-Benzyloxy-3-trifluoromethylbenzaldehyde
                                            477980-91-9P,
3-(4-Hydroxy-3-trifluoromethylphenyl)-2-methoxyacrylic acid methyl ester
477980-92-0P, 3-[4-[3-(Biphenyl-4-yloxy)propoxy]-3-
trifluoromethylphenyl]-2-methoxyacrylic acid methyl ester
477980-93-1P, 3-[4-[3-(Biphenyl-4-yloxy)propoxy]-3-
trifluoromethylphenyl]-2-methoxyacrylic acid
                                               477980-95-3P
477980-96-4P, (2S)-3-(6-Hydroxy-4'-methoxybiphenyl-3-yl)-2-
methoxypropionic acid ethyl ester 477980-97-5P, (2S)-3-[6-[3-(Biphenyl-4-
yloxy)propoxy]-4'-methoxybiphenyl-3-yl]-2-methoxypropionic acid ethyl
        477981-00-3P, 2-Methyl-4-(triisopropylsilanyloxy)benzaldehyde
477981-01-4P, 3-[4-[3-(Biphenyl-4-yloxy)propoxy]-2-methylphenyl]-2-
methoxyacrylic acid methyl ester 477981-02-5P, 3-(4-Hydroxy-2-
methylphenyl) -2-methoxyacrylic acid
                                      477981-04-7P, 3-[4-[3-(Biphenyl-4-
yloxy)propoxy]-2-methylphenyl]-2-methoxypropionic acid methyl ester
477981-07-0P, 3-(3-Hydroxyphenyl)-2-methoxypropionic acid methyl ester
477981-20-7P, (2S)-3-[4-(3-Bromopropoxy)phenyl]-2-methoxypropionic acid
ethyl ester
             477981-27-4P, (S)-5-(4-Benzyloxybenzyl)-2,2-dimethyl-
[1,3]dioxolan-4-one
                      477981-33-2P, (S)-5-(4-Hydroxybenzyl)-2,2-dimethyl-
[1,3]dioxolan-4-one
                      477982-20-0P, 4-[3-(Biphenyl-4-yloxy)propoxy]-2-
                     477982-21-1P, 3-[4-[3-(Biphenyl-4-yloxy)propoxy]-2-
fluorobenzaldehyde
fluorophenyl]-3-hydroxy-2-methoxypropionic acid methyl ester
477982-22-2P, 3-[4-[3-(Biphenyl-4-yloxy)propoxy]-2-fluorophenyl]-2-
methoxypropionic acid methyl ester 477982-24-4P,
3-(4-Benzyloxyphenyl)-2-(4-chlorophenoxy)propanoic acid methyl ester
477982-25-5P, 2-Phenoxy-3-[4-[3-(4-phenoxyphenoxy)propoxy]phenyl]propanoic
                   477982-27-7P, Methyl 3-hydroxy-2-methoxy-3-[4-
acid methyl ester
(phenylmethoxy)phenyl]propanoate 477982-28-8P, 3-(4-Hydroxyphenyl)-2-
methoxypropanoic acid 477982-29-9P
                                       477982-30-2P, Ethyl
(2S) -2-methoxy-3-[4-[3-(4-phenoxyphenoxy)propoxy]phenyl]propanoate
477982-37-9P, (2S)-2-Hydroxy-3-[4-[3-(4-phenoxyphenoxy)propoxy]phenyl]prop
ionic acid ethyl ester 477982-38-0P, (2S)-2-Ethoxy-3-[4-[3-(4-
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phenoxyphenoxy)propoxy]phenyl]propionic acid ethyl ester
                                                         477982-41-5P,
methoxypropionic acid ethyl ester
                                  477982-42-6P, (2S)-3-[4-[3-[4-[4-[2-
(tert-Butyldimethylsilanyloxy)ethoxy]benzoyl]phenoxy]propoxy]phenyl]-2-
methoxypropionic acid ethyl ester
                                  477982-45-9P, (2S)-2-Allyloxy-3-(4-
benzyloxyphenyl) propionic acid ethyl ester
                                            477982-46-0P,
(2S)-3-(4-Hydroxyphenyl)-2-propoxypropionic acid ethyl ester
477982-47-1P, (2S)-3-[4-[3-(4-Phenoxyphenoxy)propoxy]phenyl]-2-
propoxypropionic acid ethyl ester
                                  477982-49-3P, (2S)-3-[4-[3-(4-
Benzoylphenoxy)propoxy]phenyl]-2-ethoxypropionic acid methyl ester
477982-51-7P, (2S)-3-[4-[3-(4-Benzylphenoxy)propoxy]phenyl]-2-
ethoxypropionic acid ethyl ester
                                  477982-53-9P, (2S)-3-(3-Chloro-4-
hydroxyphenyl)-2-ethoxypropionic acid ethyl ester
                                                  477982-54-0P,
(2S) -3-[4-[3-(4-Benzoylphenoxy)propoxy]-3-chlorophenyl]-2-ethoxypropionic
acid ethyl ester
                  477982-56-2P, 3-[4-(3-Hydroxypropoxy)-3-methoxyphenyl]-
                                    477982-57-3P, (2S)-4'-[3-[2-Methoxy-
2-methoxypropionic acid methyl ester
4-(2-methoxy-2-methoxycarbonylethyl)phenoxy]propoxy]biphenyl-4-carboxylic
                   477982-59-5P, 3-[4-(3-Bromopropoxy)-2-methoxy-phenyl]-
acid methyl ester
                                     477982-61-9P, (2S)-3-[4-[3-(4'-tert-
2-methoxypropionic acid methyl ester
Butylbiphenyl-4-yloxy)propoxy]-2-methoxyphenyl]-2-methoxypropionic acid
methyl ester
              477982-64-2P, 4-(2,2,3,3-Tetrafluoropropoxy)1-
                  477982-65-3P, (2S)-2-Methoxy-3-[4-[3-[4-(2,2,3,3-
benzyloxybenzene
tetrafluoropropoxy)phenoxy]propoxy]phenyl]propionic acid ethyl ester
477982-68-6P, (2S)-3-[4-[3-(4-Benzyloxyphenoxy)propoxy]phenyl]-2-
                                  477982-69-7P, (2S)-3-[4~[3-(4-
methoxypropionic acid ethyl ester
Hydroxyphenoxy)propoxy]phenyl]-2-methoxypropionic acid ethyl ester
477982-70-0P, (2S)-2-Methoxy-3-[4-[3-[4-(3-methylbutoxy)phenoxy]propoxy]ph
enyl]propionic acid ethyl ester
                                 477982-78-8P, (2S)-3-[4-[3-(4-
Iodophenoxy)propoxy]phenyl]-2-methoxypropionic acid ethyl ester
477982-79-9P, (2S)-3-[4-[3-[4-(1H-Indol-5-yl)phenoxy]propoxy]phenyl]-2-
methoxypropionic acid ethyl ester
                                  477982-84-6P, (2S)-3-[4-[3-(4'-
Cyanobiphenyl-4-yloxy)propoxy]phenyl]-2-methoxypropionic acid ethyl ester
477982-86-8P, (2S)-2-Methoxy-3-[4-[3-[4'-(1H-tetrazol-5-yl)biphenyl-4-
yloxy]propoxy]phenyl]propionic acid ethyl ester
                                                477982-91-5P,
(2S) -2-Methoxy-3-[4-[3-[4-(piperazin-1-yl)phenoxy]propoxy]phenyl]propionic
                 477982-93-7P, (2S)-2-Methoxy-3-[4-[3-[4-(morpholin-4-
acid ethyl ester
yl)phenoxy]propoxy]phenyl]propionic acid ethyl ester
                                                     477982-95-9P,
3-[4-[3-(Biphenyl-4-yloxy)propoxy]-2-chlorophenyl]-2-hydroxypropionic acid
477982-97-1P, (2S)-3-[4-(2-Bromoethoxy)phenyl]-2-methoxypropionic acid
             477983-02-1P, 3-(3-Benzyloxyphenyl)-3-hydroxy-2-
ethyl ester
methoxypropionic acid methyl ester
                                    477983-03-2P, 3-(3-Benzyloxyphenyl)-2-
methoxyacrylic acid methyl ester
                                  477983-04-3P
                                                 477983-05-4P,
3-(3-Benzyloxyphenyl)-2-methoxypropionic acid methyl ester
                                                            477983-44-1P,
3-[3-(3-Bromopropoxy)phenyl]-2-methoxypropionic acid methyl ester
477983-82-7P, 3-[3-(2-Bromoethoxy)phenyl]-2-methoxypropionic acid methyl
       477984-10-4P, (2S)-3-(4-Benzyloxyphenyl)-2-propoxypropionic acid
             477984-12-6P, 2-Ethoxy-3-(3-hydroxyphenyl)propionic acid
ethyl ester
methyl ester
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (intermediate; preparation of substituted (phenyl) (alkoxy) propanoic acids
  and analogs as PPAR modulators for treatment of diabetes and related
  conditions)
57-55-6, Propylene glycol, reactions
                                     69-72-7, 2-Hydroxybenzoic acid,
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57-55-6, Propylene glycol, reactions 69-72-7, 2-Hydroxybenzoic acid, reactions 77-76-9, 2,2-Dimethoxypropane 78-77-3, 1-Bromo-2-methylpropane 79-30-1, Fsobutyryl chloride 86-58-8, 8-Quinolineboronic acid 88-69-7, 2-Isopropylphenol 90-05-1, 2-Methoxyphenol 90-15-3, Naphthalen-1-ol 90-43-7, Biphenyl-2-ol 92-69-3, Biphenyl-4-ol 94-18-8, 4-Hydroxybenzoic acid benzyl ester 95-57-8, 2-Chlorophenol

95-65-8, 3,4-Dimethylphenol 98-17-9, 3-Trifluoromethylphenol 98-59-9, p-Toluenesulfonyl chloride 99-07-0, 3-Dimethylaminophenol 100-02-7, p-Nitrophenol, reactions 100-07-2, 4-Methoxybenzoyl chloride 100-39-0, Benzyl bromide 100-44-7, Benzyl chloride, reactions 101-18-8, 3-Hydroxydiphenylamine 101-53-1, 4-Benzylphenol 103-16-2, 103-80-0, Phenylacetyl chloride 106-48-9, 4-Benzyloxyphenol 106-95-6, Allyl bromide, reactions 107-08-4, Propyl p-Chlorophenol 107-19-7, Propargyl alcohol iodide 108-36-1, 1,3-Dibromobenzene 108-95-2, Phenol, reactions 109-64-8, 1,3-Dibromopropane Morpholine, reactions 119-36-8, 2-Hydroxybenzoic acid methyl ester 122-01-0, 4-Chlorobenzoyl chloride 122-94-1, 4-Butoxyphenol 4-Hydroxybenzaldehyde 123-51-3 131-56-6, 2,4-Dihydroxybenzophenone 135-19-3, Naphthalen-2-ol, reactions 142-08-5, Pyridin-2-ol 150-19-6, 3-Methoxyphenol 1,3-Dichloropropane 321-62-0, 2'-Fluorobiphenyl-4-ol 331-64-6, 2-Fluoro-4-methoxybenzaldehyde 351-54-2, 3-Fluoro-4-methoxybenzaldehyde 371-41-5, 4-Fluorophenol 372-20-3, 3-Fluorophenol 402-45-9, 4-Trifluoromethylphenol 4-Fluorobenzoyl chloride 485-71-2, (-)-Cinchonidine 504-63-2, 1,3-Propanediol 533-31-3, Benzo[1,3]dioxol-5-ol 540-38-5, p-Iodophenol 557-93-7, 2-Bromopropene 580-16-5, Quinolin-6-ol 580-51-8, Biphenyl-3-ol 585-71-7, (1-Bromoethyl) benzene 599-64-4, 4-Cumylphenol 609-65-4, 2-Chlorobenzoyl chloride 611-20-1, 2-Hydroxybenzonitrile 612-14-6, (2-Hydroxymethylphenyl) methanol 623-50-7, Ethyl glycolate 626-18-6, (3-Hydroxymethylphenyl) methanol 645-45-4, 3-Phenylpropionyl chloride 813-19-4, Bis-tributyltin 817-95-8 831-82-3, 4-Phenoxyphenol 873-62-1, 3-Cyanophenol 874-60-2, 4-Methylbenzoyl chloride 879-18-5, Naphthalene-1-carbonyl chloride 927-68-4, 2-Bromoethyl acetate 927-74-2, 3-Butyn-1-ol 1066-54-2, (Trimethylsilyl) acetylene 1125-78-6, 5,6,7,8-Tetrahydronaphthalen-2-ol 1137-42-4, 4-Benzoylphenol 1198-84-1 1470-94-6, Indan-5-ol 1507-97-7, 1-Cyclopentyl-4-methoxybenzene 1638-22-8, 4-n-Butylphenol 1679-18-1, 4-Chlorophenylboronic acid 1692-15-5, 4-Pyridylboronic acid 1692-25-7, 3-Pyridylboronic acid 1700-30-7, (3-Benzyloxyphenyl)methanol 1700-37-4, 3-Benzyloxybenzaldehyde 1711-05-3, 3-Methoxybenzoyl chloride 1711-06-4, 3-Methylbenzoyl chloride 1711-07-5, 3-Fluorobenzoyl chloride 1765-93-1, 4-Fluorophenylboronic acid 1806-26-4, 4-Octylphenol 1953-54-4, 1H-Indol-5-ol 1993-03-9, 2-Fluorophenylboronic acid 2243-83-6, Naphthalene-2-carbonyl chloride 2380-84-9, 1H-Indol-7-ol 2426-87-1, 4-Benzyloxy-3-methoxybenzaldehyde 2443-58-5, 9H-Fluoren-2-ol 2491-32-9, Benzyl 4-hydroxyphenyl ketone 2550-36-9, (Bromomethyl) cyclohexane 3174-67-2, 1,3-Pentanediol 3179-63-3 3282-30-2, 2,2-Dimethylpropionyl chloride 3513-81-3, 2-Methylenepropane-1,3-diol 3900-89-8, 2-Chlorophenylboronic acid 4397-53-9, 4-Benzyloxybenzaldehyde 4104-33-0 4541-15-5, 5-Benzyloxypentan-1-ol 4787-77-3, 2-Pyrrolidin-1-ylphenol 5057-98-7, cis-1,2-Cyclopentanediol 5390-04-5, 4-Pentyn-1-ol 5720-07-0, 4-Methoxyphenylboronic acid 6165-68-0, Thiophene-2-boronic acid 6290-49-9, Methyl methoxyacetate 6665-83-4, 6-Hydroxyflavone 6665-86-7, 7-Hydroxyflavone 6949-73-1, 2-Hydroxy-9-fluorenone 7154-85-0, N-(4-Hydroxyphenyl)phthalimide 10041-02-8, 4-(Imidazol-1-yl)phenol 13037-86-0, 4-Heptyloxyphenol 13154-24-0, Triisopropylsilyl chloride 13196-08-2, 3-Phenyl-6-hydroxybenzofuran 17257-71-5, (S)-(-)- $\alpha$ -Methoxy- $\alpha$ -(trifluoromethyl)phenylacetic 17299-07-9, (2R,5R)-Hexane-2,5-diol 18162-48-6, tert-Butyldimethylsilyl chloride 19132-06-0 19438-10-9, 3-Hydroxybenzoic acid methyl ester 19812-92-1, 4'-tert-Butylbiphenyl-4-19812-93-2, 4'-Hydroxy-4-biphenylcarbonitrile 21615-34-9, 2-Methoxybenzoyl chloride 23508-35-2, (S)-2-Hydroxy-3-(4hydroxyphenyl)propionic acid 24347-58-8, (2R,3R)-Butane-2,3-diol

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25913-05-7, 4-Fluoro-4'-hydroxybenzophenone
                                             27292-49-5,
3-(4-Morpholino)phenol
                        34338-96-0, (2S,5S)-Hexane-2,5-diol
                   39634-42-9, 4-(4-Trifluoromethylphenoxy)phenol
Phenyl triflimide
40501-41-5, 4'-Hydroxybiphenyl-4-carboxylic acid methyl ester
41351-30-8, 2,4-Dimethoxy-4'-hydroxybenzophenone
                                                  41536-44-1,
                                                           51067-38-0,
2-Morpholin-4-ylphenol
                        42075-32-1, (2R,4R)-Pentanediol
4-Phenoxyphenylboronic acid
                             52222-87-4, (6-Hydroxynaphthalen-2-
yl)phenylmethanone
                    56363-84-9, 2-Chloro-4-hydroxybenzoic
                                                             56621-48-8.
1-(4-Hydroxyphenyl)piperazine
                              59016-93-2, 4-Hydroxymethylphenylboronic
       60859-24-7, 3-(4-Benzylphenoxy) propyl bromide
                                                       63402-63-1,
3-(4-Phenoxyphenoxy)propan-1-ol
                                 63503-60-6, 3-Chlorophenylboronic acid
67914-60-7, 1-Acetyl-4-(4-hydroxyphenyl)piperazine
                                                     68867-14-1,
2-Methylbenzothiazol-5-ol
                           72345-23-4, (2S,4S)-Pentanediol
                                                              72569-10-9,
1-(4-Hydroxyphenyl)-2,2-dimethylpropan-1-one
                                             72912-49-3,
2-(2,3,6-Trifluorophenoxy)ethanol
                                   73842-99-6, 3-(tert-
Butyldimethylsilanyloxy)propan-1-ol
                                     73852-19-4, 3,5-
Bis(trifluoromethyl)phenylboronic acid
                                        74052-89-4, N-(4-Hydroxyphenyl)-
2,2-dimethylpropionamide 85459-30-9, Methanesulfonic acid
                                87184-99-4, 4-(tert-
2,2,3,3-tetrafluoropropyl ester
Butyldimethylsilanyloxy)butan-1-ol
                                    87199-16-4, 3-Formylphenylboronic
      91973-67-0, N-(4-Hydroxyphenyl)nicotinamide
                                                   94839-07-3
100124-06-9, 4-Dibenzofuranboronic acid
                                          101969-75-9,
2-Fluoro-4'-hydroxybenzophenone
                                108357-63-7, [4-(3-
Bromopropoxy) phenyl] phenylmethanone
                                     123324-71-0, 4-tert-
                          129742-36-5, 4-tert-Butyldimethylsilanyloxy-2-
Butylphenylboronic acid
                     139301-27-2, 4-Trifluoromethoxybenzeneboronic acid
methoxybenzaldehyde
144104-59-6, 5-Indolylboronic acid 179018-47-4, 2-Fluoro-4-
                     179113-90-7, 3-Trifluoromethoxybenzeneboronic acid
hydroxybenzophenone
222555-06-8, (2S)-2-Ethoxy-3-(4-hydroxyphenyl)propionic acid ethyl ester
                                                          325793-74-6,
253785-18-1, [4-(3-Hydroxypropoxy)phenyl]phenylmethanone
(2S)-2-Ethoxy-3-(4-hydroxyphenyl)propionic acid methyl ester
                                                               438526-21-7
477979-20-7, (S)-2-Methoxy-3-(4-hydroxyphenyl)propionic acid ethyl ester
477979-36-5, 6-Hydroxy-3-(4-fluorophenyl)benzofuran
                                                      477979-46-7,
(2S) -3-[4-(5-Hydroxypent-1-ynyl)phenyl]-2-methoxypropionic acid
477979-79-6, (2S)-3-[4-(4-Hydroxybut-1-ynyl)phenyl]-2-methoxypropionic
                  477979-81-0, (2S)-3-(4-Iodophenyl)-2-methoxypropionic
acid ethyl ester
                   477980-31-7
                                477980-43-1, (2S)-3-(4-Hydroxyphenyl)-2-
acid ethyl ester
                        477980-43-1D, (2S)-3-(4-Hydroxyphenyl)-2-
methoxypropionic acid
                                    477980-45-3D, (2S)-3-[4-(3-
methoxypropionic acid, resin bound
Hydroxypropoxy)phenyl]-2-methoxypropionic acid, resin bound
477980-74-8D, 3-[4-(3-Hydroxypropoxy)-3-methoxyphenyl]-2-methoxypropionic
acid, resin bound
                   477981-12-7, (2S)-3-[4-[3-[4-(4-
Fluorobenzoyl)phenoxy]propoxy]phenyl]-2-methoxypropionic acid ethyl ester
477981-18-3, (2S)-3-[4-(3-Hydroxypropoxy)phenyl]-2-methoxypropionic acid
             477981-36-5, 3-[4-(3-Bromopropoxy)-3-methoxyphenyl]-2-
methoxypropionic acid 477981-42-3, 4-Dibenzofuran-3-ylphenol
477981-45-6, (2S)-3-[4-(4-Bromobutoxy)phenyl]-2-methoxypropionic acid
              477981-56-9
                           477981-64-9, 3-(2-Chloro-4-hydroxyphenyl)-2-
ethyl ester
methoxypropionic acid ethyl ester
                                   477981-71-8, 4-Dibenzothiophen-4-
ylphenol
           477982-32-4, (2S)-2-Methoxy-3-[4-[2-(4-
phenoxyphenoxy)propoxy]phenyl]propionic acid
                                               477982-33-5,
3-[4-[2-Methylene-3-(4-phenoxyphenoxy)propoxy]phenyl]propionic acid
477982-60-8, 3-(4-Hydroxy-2-methoxyphenyl)-2-methoxypropionic acid methyl
        477982-66-4, 3-[4-(3-Bromopropoxy)phenyl]-2-methoxypropionic acid
ester
              477984-00-2
ethyl ester
                           477984-14-8, (S)-3-[4-[3-(4'-Bromobiphenyl-4-
yloxy) propoxy phenyl] -2-methoxypropionic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
   (preparation of substituted (phenyl) (alkoxy) propanoic acids and analogs as
   PPAR modulators for treatment of diabetes and related conditions)
```

IT 477980-89-5P, 3-[4-[3-(Biphenyl-4-yloxy)propoxy]-3-

trifluoromethylphenyl]-2-methoxypropionic acid

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(PPAR modulator; preparation of substituted (phenyl) (alkoxy)propanoic acids and analogs as PPAR modulators for treatment of diabetes and related conditions)

RN 477980-89-5 HCAPLUS

CN Benzenepropanoic acid,  $4-[3-([1,1'-biphenyl]-4-yloxy)propoxy]-\alpha-methoxy-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)$ 

IT 477980-90-8P, 4-Benzyloxy-3-trifluoromethylbenzaldehyde

**477980-92-0P**, 3-[4-[3-(Biphenyl-4-yloxy)propoxy]-3-

trifluoromethylphenyl]-2-methoxyacrylic acid methyl ester

477980-93-1P, 3-[4-[3-(Biphenyl-4-yloxy)propoxy]-3-

trifluoromethylphenyl]-2-methoxyacrylic acid

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of substituted (phenyl) (alkoxy) propanoic acids and analogs as PPAR modulators for treatment of diabetes and related conditions)

RN 477980-90-8 HCAPLUS

CN Benzaldehyde, 4-(phenylmethoxy)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 477980-92-0 HCAPLUS

CN 2-Propenoic acid, 3-[4-[3-([1,1'-biphenyl]-4-yloxy)propoxy]-3-(trifluoromethyl)phenyl]-2-methoxy-, methyl ester (9CI) (CA INDEX NAME)

477980-93-1 HCAPLUS RN

CN 2-Propenoic acid, 3-[4-[3-([1,1'-biphenyl]-4-yloxy)propoxy]-3-(trifluoromethyl)phenyl]-2-methoxy- (9CI) (CA INDEX NAME)

IT 99-07-0, 3-Dimethylaminophenol 1953-54-4, 1H-Indol-5-ol

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of substituted (phenyl) (alkoxy) propanoic acids and analogs as PPAR modulators for treatment of diabetes and related conditions)

RN99-07-0 HCAPLUS

Phenol, 3-(dimethylamino)- (9CI) (CA INDEX NAME) CN

RN 1953-54-4 HCAPLUS

CN 1H-Indol-5-ol (9CI) (CA INDEX NAME)

L33 ANSWER 9 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:655599 HCAPLUS

DOCUMENT NUMBER: 137:337755

TITLE: Synthesis of New Molecules Containing Head, Spacer,

and Label Moieties

AUTHOR (S): Khatyr, Abderrahim; Maas, Huub; Calzaferri, Gion

CORPORATE SOURCE: Department of Chemistry and Biochemistry, University

of Bern, Bern, CH-3012, Switz.

SOURCE: Journal of Organic Chemistry (2002), 67(19), 6705-6710

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

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<sup>\*</sup> STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB We describe the synthesis and characterization of novel stopcock mols. containing a head with precise shape, spacer, and label moieties. The protocol is based on a Pd(0)-catalyzed cross-coupling reaction between ethynylphenyl/bromide to obtain a rigid head followed by the attachment of a flexible spacer possessing two reactive functional groups on the termini. The final step consists of forming a covalent bond between spacer and label. In addition, monosubstituted soluble labels were synthesized in good yields. Examples of the products are I and II.

CC 27-14 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 28, 41

IT Dyes

(preparation of soluble dyes)

IT 473933-46-9P 473933-48-1P 473933-50-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of soluble dyes)

IT 473933-50-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of soluble dyes)

RN 473933-50-5 HCAPLUS

CN 1-Propanone, 2,3-dibromo-1-[4-[2,3-dibromo-3-(4-methoxyphenyl)-1-oxopropyl]phenyl]-3-phenyl- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 10 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:153776 HCAPLUS

DOCUMENT NUMBER: 136:365624

TITLE: Design and Synthesis of Class-Selective Activity

Probes for Protein Tyrosine Phosphatases

AUTHOR(S): Lo, Lee-Chiang; Pang, Te-Ling; Kuo, Chi-Hsien; Chiang,

Ying-Ling; Wang, Hsin-Yi; Lin, Jing-Jer

CORPORATE SOURCE: Department of Chemistry, National Taiwan University,

Taipei, 106, Taiwan

SOURCE: Journal of Proteome Research (2002), 1(1), 35-40

CODEN: JPROBS; ISSN: 1535-3893

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

Two mechanism-based activity probes, adopting a cassette-like design, for protein tyrosine phosphatases (PTPs) were synthesized. Both probes carry a phosphate group that serves as the recognition head for the target PTPs but differ in their reporter groups; probe LCL-1 uses a dansyl fluorophore, while LCL-2 has a biotin reporter group. LCL-1 and LCL-2 are specifically activated by phosphatase, leading to its covalent labeling, as exemplified with PTP-1B. However, they show no activation with other classes of hydrolases, including trypsin and  $\beta$ -galactosidase. LCL-1 and LCL-2 thus represent the first example of class-selective probes for

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phosphatases.
CC
     7-3 (Enzymes)
IT
     423756-10-9P 423756-12-1P
     RL: BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant
     or reagent)
        (protein tyrosine phosphatase can be labeled by class-selective
        activity probes LCL-1 and LCL-2)
IT
     605-65-2, Dansyl chloride 35013-72-0, (N-
     Hydroxysuccinimidyl) biotin 252259-78-2
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (protein tyrosine phosphatase can be labeled by class-selective
        activity probes LCL-1 and LCL-2)
IT
     423756-07-4P 423756-08-5P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (protein tyrosine phosphatase can be labeled by class-selective
        activity probes LCL-1 and LCL-2)
     423756-10-9P 423756-12-1P
     RL: BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant
     or reagent)
        (protein tyrosine phosphatase can be labeled by class-selective
        activity probes LCL-1 and LCL-2)
RN
     423756-10-9 HCAPLUS
     Benzeneacetamide, N-[2-[2-[2-[[5-(dimethylamino)-1-
     naphthalenyl]sulfonyl]amino]ethoxy]ethoxy]ethyl]-\alpha-fluoro-4-
     (phosphonooxy) -, compd. with N, N-diethylethanamine (1:1) (9CI) (CA INDEX
     NAME)
     CM
          1
     CRN 423756-09-6
     CMF C26 H33 F N3 O9 P S
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PAGE 1-A

## PAGE 2-A

CM 2

CRN 121-44-8 CMF C6 H15 N

RN 423756-12-1 HCAPLUS

CN 1H-Thieno[3,4-d]imidazole-4-pentanamide, N-[2-[2-[2-[[fluoro[4-(phosphonooxy)phenyl]acetyl]amino]ethoxy]ethoxy]ethyl]hexahydro-2-oxo-, (3aS,4S,6aR)-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 423756-11-0 CMF C24 H36 F N4 O9 P S

Absolute stereochemistry.

PAGE 1-B

CM 2

CRN 121-44-8 CMF C6 H15 N

IT 35013-72-0, (N-Hydroxysuccinimidyl)biotin 252259-78-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(protein tyrosine phosphatase can be labeled by class-selective activity probes LCL-1 and LCL-2)

RN 35013-72-0 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 252259-78-2 HCAPLUS

CN Phosphoric acid, 4-[2-[[2-[2-(2-aminoethoxy)ethoxy]ethyl]amino]-1-fluoro-2-oxoethyl]phenyl di-2-propenyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 252259-77-1 CMF C20 H30 F N2 O7 P

PAGE 1-B

- CH<sub>2</sub>- CH<sub>2</sub>- NH<sub>2</sub>

CM 2

CRN 76-05-1 CMF C2 H F3 O2

IT 423756-07-4P 423756-08-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(protein tyrosine phosphatase can be labeled by class-selective activity probes LCL-1 and LCL-2)

RN 423756-07-4 HCAPLUS

CN Phosphoric acid, 4-[2-[[2-[2-[2-[[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]amino]ethoxy]ethoxy]ethyl]amino]-1-fluoro-2-oxoethyl]phenyl di-2-propenyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 423756-08-5 HCAPLUS

CN Phosphoric acid, 4-[1-fluoro-17-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-2,13-dioxo-6,9-dioxa-3,12-diazaheptadec-1-yl]phenyl di-2-propenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

REFERENCE COUNT:

THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 11 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:833867 HCAPLUS

DOCUMENT NUMBER:

135:357774

TITLE:

Preparation of phthalic acid diamides as agricultural

and horticultural insecticides

INVENTOR(S):

Tohnishi, Masanori; Nakao, Hayami; Kohno, Eiji; Nishida, Tateki; Furuya, Takashi; Shimizu, Toshiaki; Seo, Akira; Sakata, Kazuyuki; Fujioka, Shinsuke;

Kanno, Hideo

PATENT ASSIGNEE(S):

Nihon Nohyaku Co., Ltd., Japan

SOURCE:

U.S. Pat. Appl. Publ., 114 pp., Cont.-in-part of U.S.

Ser. No. 198,391, abandoned.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001041814	A1	20011115	US 1999-250261	19990216
US 6362369	B2	20020326		
US 2003055287	A1	20030320	US 2002-35132	20020104
US 6559341	B2	20030506		
PRIORITY APPLN. INFO.:			JP 1997-339393 A	19971125
			JP 1998-51351 A	19980217
			US 1998-198391 B	2 19981124
			US 1999-250261 A	3 19990216
OTHER SOURCE(S) .	маррат	135.357774		

OTHER SOURCE(S):

MARPAT 135:35///4

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AB The title compds. [I; R1-R3 = H, CN, cycloalkyl, etc.; X = H, CN, NO2, etc.; n = 1-4; Y = H, halo, CN, etc.; m = 1-5; Z1, Z2 = O, S] which show excellent activities for controlling injurious insects, were prepared Thus, reaction of 3-nitro-2-ethoxycarbonylbenzoyl chloride with 4-chloro-2-methylaniline in the presence of Et3N in THF followed by treatment of the resulting Et 6-nitro-N-(4-chloro-2methylphenyl)phthalamate with isopropylamine in dioxane afforded I [R1 = iso-Pr; R2 = R3 = H; X = 3-NO2; Y = 2-Me-4-C1; Z1 = Z2 = O] which showed excellent insecticidal effect (100% mortality) against diamondback moth and common cutworm. The fluorine-containing anilines II [R10 = halo, alkyl, alkoxy, CF3; R20, R30, R40 = H or perfluoroalkyl; provided that at least one of R20-R40 is not H atom, and that R30 is neither a pentafluoroethyl nor a n-heptafluoropentyl when R10 = F and each of R20 and R40 = H], useful as a starting material for said phthalic acid diamides were also prepared

IC ICM C07C233-00

NCL 564156000

CC25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds) Section cross-reference(s): 5

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IT
     16497-37-3P
                    16497-38-4P
                                  226958-87-8P
                                                  226958-88-9P
                                                                  226958-89-0P
     226958-90-3P
                     226958-91-4P
                                    226958-92-5P
                                                    226958-93-6P
                                                                    226958-94-7P
     226958-95-8P
                     226958-96-9P
                                    226958-97-0P
                                                    226958-98-1P
                                                                    226959-00-8P
     226959-02-0P
                     226959-04-2P
                                    226959-06-4P
                                                    226959-08-6P
                                                                    226959-10-0P
     226959-12-2P
                     226959-15-5P
                                    226959-17-7P
                                                                    226959-21-3P
                                                    226959-19-9P
                     226959-25-7P
                                    226959-27-9P
     226959-23-5P
                                                    226959-29-1P
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     RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); BSU (Biological study, unclassified); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of phthalic acid diamides as agricultural and horticultural
        insecticides)
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 RL: AGR (Agricultural use); BAC (Biological activity or effector, except
 adverse); BSU (Biological study, unclassified); SPN (Synthetic
 preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
    (preparation of phthalic acid diamides as agricultural and horticultural
    insecticides)
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RL: AGR (Agricultural use); BAC (Biological activity or effector, except
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   (preparation of phthalic acid diamides as agricultural and horticultural
   insecticides)
95-69-2, 4-Chloro-2-methylaniline
                                    117-21-5, 3-Chlorophthalic
anhydride
            461-82-5, 4-Trifluoromethoxyaniline
                                                  641-70-3
                                                              677-69-0,
2-Iodoheptafluoropropane
                           2253-73-8, Isopropyl isothiocyanate
13194-68-8
             28394-52-7
                          28418-88-4, 3-Iodophthalic anhydride
39211-40-0
             39211-57-9
                          42016-93-3, 2-Chloro-4-iodoaniline
                                                                52415-00-6
226979-97-1
              226979-98-2
                            238098-39-0
                                          372193-51-6
RL: RCT (Reactant); RACT (Reactant or reagent)
   (preparation of phthalic acid diamides as agricultural and horticultural
   insecticides)
226960-70-9P 226961-60-0P 226963-22-0P
226963-84-4P 226966-20-7P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except
adverse); BSU (Biological study, unclassified); SPN (Synthetic
preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
   (preparation of phthalic acid diamides as agricultural and horticultural
   insecticides)
226960-70-9 HCAPLUS
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IT

IT

RN

CN

1,2-Benzenedicarboxamide, 3-chloro-N1-[4-(difluoromethoxy)-3-

(trifluoromethyl)phenyl]-N2-(1-methylethyl)- (9CI) (CA INDEX NAME)

RN 226961-60-0 HCAPLUS

CN 1,2-Benzenedicarboxamide, 3-chloro-N2-[4-(difluoromethoxy)-3-(trifluoromethyl)phenyl]-N1-(1-methylethyl)- (9CI) (CA INDEX NAME)

RN 226963-22-0 HCAPLUS

CN 1,2-Benzenedicarboxamide, N1-[4-(difluoromethoxy)-3-(trifluoromethyl)phenyl]-3-iodo-N2-(1-methylethyl)- (9CI) (CA INDEX NAME)

RN 226963-84-4 HCAPLUS

CN 1,2-Benzenedicarboxamide, N2-[4-(difluoromethoxy)-3-(trifluoromethyl)phenyl]-3-iodo-N1-(1-methylethyl)- (9CI) (CA INDEX NAME)

RN 226966-20-7 HCAPLUS

CN 1,2-Benzenedicarboxamide, N1-[4-(difluoromethoxy)-3-(trifluoromethyl)phenyl]-N2-(1-methylethyl)-3-nitro- (9CI) (CA INDEX NAME)

IT 95-69-2, 4-Chloro-2-methylaniline

RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of phthalic acid diamides as agricultural and horticultural
 insecticides)

RN 95-69-2 HCAPLUS

CN Benzenamine, 4-chloro-2-methyl- (9CI) (CA INDEX NAME)

L33 ANSWER 12 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:152525 HCAPLUS

DOCUMENT NUMBER:

134:212695

TITLE:

Drug conjugates comprising vector-linker-pharmacophore

and methods of designing the same

INVENTOR(S): Brenner, Sydney; Goelet, Philip; Stackhouse, Joseph;

Millward, Steven W.

PATENT ASSIGNEE(S):

(S): USA

SOURCE:

PCT Int. Appl., 196 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

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PATENT NO.
                       KIND
                              DATE
                                          APPLICATION NO.
                                                                DATE
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                        A2
                              20010301
    WO 2001013958
                                          WO 2000-US23593
                                                                 20000828
                        A3
    WO 2001013958
                              20020131
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
            HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
            LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
            SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
            ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
            CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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                              20010301
                                        CA 2000-2382202
    EP 1212096
                        A2
                               20020612
                                          EP 2000-959512
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL
                              20030225
                                          JP 2001-518093
PRIORITY APPLN. INFO.:
                                          US 1999-150765P
                                                              P 19990826
                                          US 1999-150894P
                                                            P 19990826
                                          US 2000-184411P
                                                            P 20000223
                                          US 2000-184412P
                                                             P 20000223
                                          WO 2000-US23593
                                                             W 20000828
    The invention relates to drug conjugates and methods of their design.
    embodiment of the invention is directed to a method of designing
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AB The invention relates to drug conjugates and methods of their design. One embodiment of the invention is directed to a method of designing vector-linker-pharmacophore (VLP) conjugates that is generally applicable to a wide variety of vectors, linkers, and pharmacophores. The invention also encompasses a method of improving the delivery of a pharmacophore to a patient, as well as a method of improving the therapeutic efficacy of a pharmacophore and a method of decreasing the toxicity of a pharmacophore. A method of increasing the concentration of a pharmacophore in a cell is

encompassed by the invention. Preparation of many VLP conjugates including conjugates of kirromycin-3-nitro-4-hydrazidophenylthioethanol-tetracycline derivative, are disclosed.

- IC ICM A61K047-48
- CC 63-5 (Pharmaceuticals)
  - Section cross-reference(s): 28
- 58-85-5DP, Biotin, conjugate with penicillin derivs.
  58-85-5DP, Biotin, conjugates 60-54-8DP, Tetracycline,
  conjugates 525-97-3DP, Penicillin a, derivs., conjugate with biotin
  738-70-5DP, Trimethoprim, conjugates 738-70-5DP, Trimethoprim, reaction
  with kirromycin conjugates 1406-05-9DP, Penicillin, conjugates
  11076-17-8DP, Sordarin, conjugates with antibiotics 86386-73-4DP,
  Fluconazole, conjugates 328401-25-8P 328401-69-0DP, reaction with
  tetracycline and trimethoprim derivs.
  - RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug conjugates comprising vector-linker-pharmacophore and methods of designing same)

IT 50-00-0, Formaldehyde, reactions 60-23-1, 2-Mercaptoethylamine
60-54-8D, Tetracycline, reaction with kirromycin conjugates 64-17-5,
Ethanol, reactions 64-18-6, Formic acid, reactions 97-51-8,
5-Nitrosalicylaldehyde 100-39-0, Benzyl bromide 103-84-4,
Acetylaniline 108-24-7, Acetic anhydride 109-64-8, 1,3 DiBromopropane

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124-40-3, Dimethylamine, reactions
    111-30-8, Glutardialdehyde
                                                                       124-41-4
                         124-63-0, Methylsulfonyl chloride
     , Sodium methoxide
                                                              142-28-9, 1,3
                                                         302-01-2, Hydrazine,
                      156-81-0, 2,4 Diaminopyrimidine
    Dichloropropane
                            540-88-5, Tert-Butylacetate
                                                         551-16-6,
    reactions
                530-62-1
    6-Aminopenicillanic acid .598-21-0, BROMOACETYL BROMIDE
                                                                601-89-8,
    2-Nitroresorcinol 605-65-2, Dansyl chloride
                                                    624-84-0, Formyl hydrazine
               928-01-8, Maleamide
                                     1003-10-7, \gamma-Thiobutyrolactone
    1197-55-3, 4-Aminophenylacetic acid
                                           1313-82-2, Sodium sulfide, reactions
                 2950-43-8, Hydroxylamine-O-sulfonic acid
    2393-24-0
                                                            3483-12-3,
                      3963-95-9, Methacycline hydrochloride 4163-60-4
     4829-04-3, 1,3-Dithiolane
                               5414-21-1, 5-Bromovaleronitrile
                                                                   5470-11-1,
    Hydroxylamine hydrochloride 6258-60-2, 4-Methoxybenzylmercaptan
     6539-14-6, Traut's reagent
                                  6625-20-3, 6-Demethyl 6 deoxytetracycline
                    7631-99-4, Sodium nitrate, reactions
                                                            7664-41-7, Ammonia,
    hydrochloride
                7681-49-4, Sodium fluoride, reactions
                                                       7697-37-2, Nitric
    reactions
                      7790-28-5, Sodium periodate
                                                    7791-25-5, Sulfonyl
    acid, reactions
     chloride
               10028-15-6, Ozone, reactions
                                               10035-10-6, Hydrobromic acid,
                10592-13-9, Doxycycline hydrochloride
                                                         13154-24-0,
     Triisopropylsilyl chloride 16940-66-2, Sodium borohydride
                     22542-53-6 23361-78-6
                                                25155-26-4, Dimethoxyphenol
    Mercuric oxide
     25895-60-7, Sodium cyanoborohydride
                                          38078-09-0, Diethylaminosulfur
                   41661-47-6, 4-Piperidone
                                              50935-71-2, Kirromycin
     trifluoride
                  69468-17-3, Diaminobutane
                                              72040-63-2
                                                           84030-21-7
     53152-67-3
     93285-75-7 109276-34-8
                              134759-23-2
                                            205584-10-7
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     RL: RCT (Reactant); RACT (Reactant or reagent)
        (drug conjugates comprising vector-linker-pharmacophore and methods of
       designing same)
                 107-68-6P, N-Methyltaurine
                                              501-53-1P, Carbobenzyloxy
IT
     104-10-9P
     chloride
               1007-54-1P
                            3163-15-3P, 2-Aminoresorcinol
    6066-83-7P, 5-Aminovaleronitrile
                                        15896-61-4P
                                                      17385-61-4P
                                                                    19285-38-2P
                   21253-58-7P
                                 21822-24-2P
     21253-57-6P
                                               52648-14-3P,
                               73164-56-4P
                                              74219-55-9P
                                                            86386-77-8P
     1-N-Desmethylgoldinamine
                   120793-45-5P
                                   143429-10-1P
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     161321-34-2P
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                                                  328400-83-5P
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     328400-89-1P
                    328400-91-5P
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                                   328401-14-5P
                                                  328401-15-6P
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     328401-17-8P 328401-18-9P 328401-19-0P
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                                                                 328401-57-6P
     328401-59-8P
                    328401-61-2P
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                                                  328401-64-5P
                                                                 328401-66-7P
     328401-68-9P
                    328401-69-0DP, derivs.
                                             328401-71-4P
                                                            328401-72-5P
     328401-73-6P
                    328401-74-7P
                                   328401-75-8P
                                                  328401-76-9P
                                                                 328401-77-0P
     328899-82-7P, Goldinonic acid
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (drug conjugates comprising vector-linker-pharmacophore and methods of
        designing same)
IT
     58-85-5DP, Biotin, conjugate with penicillin derivs.
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
```

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug conjugates comprising vector-linker-pharmacophore and methods of designing same)

RN 58-85-5 HCAPLUS

CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

IT 109276-34-8

RL: RCT (Reactant); RACT (Reactant or reagent)
 (drug conjugates comprising vector-linker-pharmacophore and methods of
 designing same)

RN 109276-34-8 HCAPLUS

CN Hexanoic acid, 6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-, hydrazide (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$H_{2}N$$
 $H_{2}N$ 
 $H_{3}N$ 
 $H_{4}N$ 
 $H_{5}N$ 
 $H$ 

IT 188434-25-5P 188434-26-6P 328401-17-8P

328401-18-9P 328401-19-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(drug conjugates comprising vector-linker-pharmacophore and methods of designing same)

RN 188434-25-5 HCAPLUS

CN  $\beta$ -D-Galactopyranoside, 2-(difluoromethyl)-4-nitrophenyl, 2,3,4,6-tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 188434-26-6 HCAPLUS

CN  $\beta$ -D-Galactopyranoside, 4-amino-2-(difluoromethyl)phenyl, 2,3,4,6-tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 328401-17-8 HCAPLUS

CN  $\beta$ -D-Galactopyranoside, 4-amino-2-(difluoromethyl)phenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 328401-18-9 HCAPLUS

Absolute stereochemistry.

RN · 328401-19-0 HCAPLUS

CN Hexanamide, N-[6-[[3-(difluoromethyl)-4-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)oxy]phenyl]amino]-6-oxohexyl]-6-[(iodoacetyl)amino]-(9CI) (CA INDEX NAME)

### Absolute stereochemistry.

Aco 
$$(CH_2)_5$$
  $(CH_2)_5$   $(CH_2$ 

L33 ANSWER 13 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:573671 HCAPLUS

DOCUMENT NUMBER: 133:177183

TITLE: Preparation of quinazoline derivatives as angiogenesis

inhibitors

INVENTOR(S):
Hennequin, Laurent Francois Andre; Ple, Patrick;

Stokes, Elaine Sophie Elizabeth; Mckerrecher, Darren

PATENT ASSIGNEE(S): Astrazeneca UK Limited, UK; Zeneca-Pharma S.A.

SOURCE: PCT Int. Appl., 346 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

ימם	PATENT NO.				KIND DATE				APPLICATION NO.						DATE			
										ICHI	1014			2				
WO	WO 2000047212				<b>A1</b>	A1 20000817			1	WO 2000-GB373					20000208			
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		IN,	IS,	ĴΡ,	KΕ,	KG;	ΚP,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	
		MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	
		SK,	SL,	ΤJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZW,	AM,	
		ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	TJ,	TM									
	RW:	GH,	GM,	KE,	LS,	MW,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AT,	BE,	CH,	CY,	DE,	
		DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	
		CG,	CI,	.CM,	GA,	GN,	GW,	ML,	MR.	NE.	SN.	TD.	TG					

	236271	-		AA	20000817		2000-2362715	5		200002	
EP	115477	4		A1	20011121	EP	2000-902730		20000208		
	R: A	T, BE	CH,	DE,	DK, ES, FR,	GB, GI	R, IT, LI, LI	J, NL,	SE,	MC,	PT,
	I	E, SI	LT,	LV,	FI, RO						
TR	200102	314		T2	20020121	TR	2001-2001023	314	2	200002	809
BR	200000	8128		Α	20020213	BR	2000-8128		2	200002	802
JP	200253	6414		T2	.20021029	JP	2000-598164		2	200002	208
EE	200100	409		Α	20021216	EE	2001-409		2	200002	809
AU	763618			B2	20030731	AU	2000-24475		2	200002	809
NZ	513204			Α	20040430	NZ	2000-513204		2	200002	208
ZA	200100	6340		Α	20021101	ZA	2001-6340		2	200108	301
NO	200100	3882		Α	20011009	NO	2001-3882		2	200108	309
PRIORITY	APPLN	. INFO	).:			EP	1999-400305	1	A ]	99902	210
						WO	2000-GB373	1	N 2	200002	802

OTHER SOURCE(S):

MARPAT 133:177183

GΙ

AB The title compds. (I) [wherein A = an 8-, 9-, 10-, 12- or 13-membered bicyclic or tricyclic ring optionally containing 1-3 O, N, and/or S heteroatoms; Z = O, NH, S, CH2, or a bond; n = 0-5; m = 0-3; R2 = H, OH, halo, CN, NO2, CF3, alkyl(sulfanyl), alkoxy, NR3N4, or R5X1; R3 and R4 = independently H or alkyl; X1 = a bond, O, CH2, OC(O), CO, S, SO, SO2, NR6CO, CONR7, SO2R8, NR9SO2, or NR10; R5 = H or (un)substituted alkyl, alkenyl, alkynyl, or heterocyclyl, etc.; R6-R10 = independently H or (alkoxy)alkyl] were prepared for use in the production of an antiangiogenic and/or vascular permeability reducing effect in warm-blooded animals. For instance, II was synthesized in a 9-step sequence starting with the cyclization of 2-amino-4-benzyloxy-5-methoxybenzamide using Gold's reagent in dioxane to form 7-benzyloxy-6-methoxy-3,4-dihydroquinazolin-4-one (84%). I and the pharmaceutically acceptable salts thereof inhibit the effects of VEGF, a property of value in the treatment of a number of disease

II

IC ICM A61K031-505

ICS C07D401-14; C07D413-14; C07D417-12; C07D405-12; C07D401-12

states including cancer and rheumatoid arthritis (no data).

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1 622-26-4P, 2-(Piperidin-4-yl)-1-ethanol IT 2058-49-3P, 3-(Methylsulfonyl)-1-2380-83-8P, 5-Hydroxy-6-methoxyindole 3373-00-0P, 6-Hydroxy-1,2,3,4-tetrahydroquinoline 3603-45-0P, 2-(2-Morpholinoethoxy) ethanol 4332-48-3P, Ethyl 3-(1H-1,2,3-triazol-1-4441-30-9P, 4-(3-Hydroxypropyl)morpholine yl)propanoate 4887-81-4P, 5317-33-9P, 1-(3-Hydroxypropyl)-4-5-Methoxy-2-methylbenzimidazole 5318-27-4P, 6-Aminoindole 5464-12-0P, methylpiperazine 4-(2-Hydroxyethyl)-1-methylpiperazine 7357-67-7P, 1-Chloro-3morpholinopropane 7556-97-0P, 7-Hydroxyquinazoline 10312-83-1P, Methoxyacetaldehyde 13280-07-4P, 4-Chlorobut-2-yn-1-ol 13314-85-7P, 5-Hydroxy-2-methylindole 13523-92-7P, 5-Hydroxy-1-methylindole 13790-39-1P, 4-Chloro-6,7-dimethoxyquinazoline 13794-72-4P, 6,7-Dimethoxy-3,4-dihydroquinazolin-4-one 14597-28-5P, 4-(Pyrrolidin-1-yl)but-2-yn-1-ol 36729-22-3P, 2,3-Dimethyl-5hydroxyindole 39062-69-6P, 2-Benzyloxy-5-41292-66-4P, 5-Hydroxy-2-methylbenzimidazole nitrotrifluoromethylbenzene 56058-21-0P, 1-(3-Hydroxypropyl)pyrrolidin-2,5-dione 63762-83-4P, 6-Fluoro-5-methoxyindole 71082-46-7P, 3-Ethoxycarbonyl-7-71083-05-1P, Ethyl 7-methoxy-4-oxo-1,4-dihydroquinolinemethoxyquinoline 71083-35-7P, 3-Carbamoyl-7-methoxyquinoline 3-carboxylate 71083-49-3P, 3-Cyano-7-methoxyquinoline 76243-24-8P, 2-Fluoro-4-nitrobenzyloxybenzene 77156-85-5P, 4-Chloro-3-ethoxycarbonyl-7-methoxyquinoline 84497-70-1P, 3-(1H-1,2,4-Triazol-1-yl)propan-1-ol 84497-72-3P, 3-(5-Methyl-[1,2,4]triazol-1-yl)propan-1-ol 89151-44-0P, 4-(2-Hydroxyethyl)-1-(tertbutoxycarbonyl)piperidine 89151-45-1P, 4-[2-(4-Methylphenylsulfonyloxy)ethyl]-1-tert-butoxycarbonylpiperidine 90858-86-9P, 4-Bromo-5-methoxyindole 92622-97-4P, 4-Bromo-5methoxyindole-2-carboxylic acid 121247-16-3P, 3-Acetylmethyl-1,2difluoro-4-nitrobenzene 123387-51-9P, 4,4-(Ethylenedioxy)-1-tertbutoxycarbonylpiperidine 123855-51-6P, 4-Hydroxymethyl-1-tert-135531-89-4P, 5-Hydroxy-4-nitroindole butoxycarbonylpiperidine 135531-92-9P, 5-Methoxy-4-nitroindole 135716-09-5P, Ethyl 1-tert-butyloxycarbonyl-4-piperidinecarboxylate 162364-72-9P, 7-Benzyloxy-4-chloro-6-methoxyquinazoline 163210-40-0P, 2-[[1-(tert-Butoxycarbonyl)piperidin-4-yl]oxy]ethanol 174734-34-0P, 5-Methoxy-2-trifluoromethylindole 179688-01-8P, 7-Benzyloxy-6-methoxy-3,4-dihydroquinazolin-4-one 181950-57-2P, 4-Chloro-7-hydroxyquinoline 193001-44-4P, 7-Benzyloxy-4-chloro-6-methoxyquinazoline hydrochloride 193001-55-7P, 7-Benzyloxy-6-methoxy-4-phenoxyquinazoline 193001-56-8P, 7-Hydroxy-6-methoxy-4-phenoxyquinazoline 193001-79-5P, 4-(4-Chloro-2-fluorophenoxy)-7-hydroxy-6-methoxyquinazoline 193001-80-8P, 7-Benzyloxy-4-(4-chloro-2-fluorophenoxy)-6-193002-14-1P, 7-Benzyloxy-3,4-dihydroquinazolin-4-one methoxyquinazoline 193002-18-5P, 2-[N-Methyl-N-(pyridazin-4-yl)amino]ethanol 193002-19-6P, 2-[N-(3,6-Dichloropyridazin-4-yl)-N-methylamino]ethanol 193002-24-3P, 7-Benzyloxy-6-methoxy-3-[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one 193002-25-4P, 7-Hydroxy-6-methoxy-3-[(pivaloyloxy)methyl]-3,4-193002-30-1P, 4-Chloro-7-[2-(imidazol-1dihydroquinazolin-4-one 193002-31-2P, 7-[2-(Imidazol-1yl)ethoxy]-6-methoxyquinazoline yl) ethoxy] -6-methoxy-3-[(pivaloyloxy) methyl] -3,4-dihydroquinazolin-4-one 193002-32-3P, 7-[2-(Imidazol-1-yl)ethoxy]-6-methoxy-3,4-dihydroquinazolin-196194-61-3P, 6-Methoxy-7-(3-morpholinopropoxy)-4phenoxyquinazoline 196194-62-4P, 6-Methoxy-7-(3-morpholinopropoxy)-3,4-196194-78-2P, 4-Chloro-6-methoxy-7-(2dihydroquinazolin-4-one piperidinoethoxy) quinazoline hydrochloride 196194-79-3P, 6-Methoxy-4-phenoxy-7-(2-piperidinoethoxy)quinazoline 196194-80-6P, 6-Methoxy-7-(2-piperidinoethoxy)-3,4-dihydroquinazolin-4-one 196195-13-8P, 4-Chloro-6-methoxy-7-(3-morpholinopropoxy)quinazoline

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199327-69-0P, 4-Chloro-6-methoxy-7-[3-(pyrrolidin-1-yl)propoxy]quinazoline
199327-71-4P, 3-Methoxy-4-[3-(pyrrolidin-1-yl)propoxy]benzoic acid
hydrochloride
                199327-72-5P, 5-Methoxy-2-nitro-4-[3-(pyrrolidin-1-
                                        199327-73-6P, 5-Methoxy-2-nitro-4-
yl)propoxy]benzoic acid hydrochloride
[3-(pyrrolidin-1-yl)propoxy]benzamide
                                        199327-74-7P, 2-Amino-5-methoxy-4-
[3-(pyrrolidin-1-yl)propoxy]benzamide hydrochloride
                                                      199327-75-8P,
4-Hydroxy-6-methoxy-7-[3-(pyrrolidin-1-yl)propoxy]quinazoline
199328-74-0P, 4-Chloro-6-methoxy-7-[2-(2-methoxyethoxy)ethoxy]quinazoline
199328-77-3P, 6-Methoxy-7-[2-(2-methoxyethoxy)ethoxy]-3-
[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one
                                                    205194-11-2P,
(R) - (1-Methylpiperidin-3-yl) methanol 205194-12-3P, (R) - Ethyl
1-methylpiperidine-3-carboxylate 205194-13-4P, (E)-4-(Pyrrolidin-1-
yl)but-2-en-1-ol 205194-33-8P, 3-(1,1-Dioxothiomorpholino)-1-propanol
263400-83-5P, 4-Chloro-6-methoxy-7-[(1-methylpiperidin-3-
yl) methoxy] quinazoline 263400-84-6P, 4-(4-Chloro-2-fluorophenoxy)-6-
methoxy-7-[(1-methylpiperidin-3-yl)methoxy]quinazoline
                                                        263400-85-7P,
6-Methoxy-7-[(1-methylpiperidin-3-yl)methoxy]-3,4-dihydroquinazolin-4-one
264208-51-7P, 7-[3-(4-Methylpiperazin-1-yl)propoxy]-6-methoxy-3-
[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one
                                                    264208-53-9P,
6-Methoxy-7-[3-(4-methylpiperazin-1-yl)propoxy]-3,4-dihydroquinazolin-4-
      264208-55-1P, 4-Chloro-6-methoxy-7-[3-(4-methylpiperazin-1-poxy]quinazoline 264208-58-4P, Ethyl 3-methoxy-4-((1-tert-
yl)propoxy]quinazoline
butyloxycarbonylpiperidin-4-yl)methoxy)benzoate
                                                 264208-60-8P, Ethyl
                                                         264208-63-1P,
3-methoxy-4-((1-methylpiperidin-4-yl)methoxy)benzoate
Ethyl 3-methoxy-4-((1-methylpiperidin-4-yl)methoxy)-6-nitrobenzoate
264208-66-4P, Ethyl 6-amino-3-methoxy-4-((1-methylpiperidin-4-
yl) methoxy) benzoate
                      264208-69-7P, 6-Methoxy-7-[(1-methylpiperidin-4-
yl) methoxyl-3,4-dihydroquinazolin-4-one 264208-72-2P,
4-Chloro-6-methoxy-7-[(1-methylpiperidin-4-yl)methoxy]quinazoline
264208-86-8P, 6-Methoxy-3-[(pivaloyloxy)methyl]-7-[(1-tert-
butyloxycarbonylpiperidin-4-yl)methoxy]-3,4-dihydroquinazolin-4-one
264208-92-6P, 6-Methoxy-7-[[1-(2-methylsulfonylethyl)piperidin-4-
yl]methoxy]-3-[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one
264208-95-9P, 6-Methoxy-7-[[1-(2-methylsulfonylethyl)piperidin-4-
yl]methoxy]-3,4-dihydroquinazolin-4-one 264208-98-2P,
4-Chloro-6-methoxy-7-((1-(2-methylsulfonylethyl)piperidin-4-
yl) methoxy) quinazoline 264209-07-6P, 6-Methoxy-7-(3-
methylsulfonylpropoxy) -3-[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one
264209-09-8P, 6-Methoxy-7-(3-methylsulfonylpropoxy)-3,4-dihydroquinazolin-
       264209-11-2P, 4-Chloro-6-methoxy-7-(3-
methylsulfonylpropoxy)quinazoline
                                    288383-30-2P, 4-Chloro-7-[3-(1,1-
dioxothiomorpholino)propoxy]-6-methoxyquinazoline
                                                    288383-31-3P,
4-(4-Chloro-2-fluorophenoxy)-7-[3-(1,1-dioxothiomorpholino)propoxy]-6-
                     288383-32-4P, 7-[3-(1,1-Dioxothiomorpholino)propoxy]-
methoxyquinazoline
6-methoxy-3,4-dihydroquinazolin-4-one 288383-36-8P, 6-Methoxy-7-
[(piperidin-4-yl)methoxy]-3-[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-
one hydrochloride 288383-62-0P, 5-Hydroxy-2-trifluoromethylindole
288383-69-7P, 2-[N-(2-Methoxyethyl)-N-methylamino]ethanol
                                                            288383-71-1P,
4-Chloro-6-methoxy-7-(3-piperidinopropoxy)quinazoline 288383-72-2P,
7-(3-Bromopropoxy)-6-methoxy-3-[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-
        288383-73-3P, 6-Methoxy-7-(3-piperidinopropoxy)-3-
[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one
6-Methoxy-7-(3-piperidinopropoxy)-3,4-dihydroquinazolin-4-one
288383-77-7P, 7-(2-Carboxyvinyl)-6-methoxy-4-(2-methylindol-5-
                   288383-78-8P, 4-(4-Chloro-2-fluorophenoxy)-6-methoxy-7-
yloxy)quinazoline
(trifluoromethylsulfonyloxy) quinazoline 288383-79-9P,
4-(4-Chloro-2-fluorophenoxy)-6-methoxy-7-[2-(tert-
butoxycarbonyl)vinyl]quinazoline 288383-80-2P, 7-(2-Carboxyvinyl)-4-(4-
chloro-2-fluorophenoxy)-6-methoxyquinazoline 288383-85-7P,
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7-Hydroxy-4-(2-methylindol-5-yloxy)quinazoline
                                                 288383-86-8P,
                                  288383-87-9P, 7-Benzyloxy-4-(2-
7-Benzyloxy-4-chloroquinazoline
methylindol-5-yloxy)quinazoline
                                  288383-91-5P, 4-(2,3-Dimethylindol-5-
                                        288383-93-7P, 7-Benzyloxy-4-(2,3-
yloxy) -7-hydroxy-6-methoxyquinazoline
dimethylindol-5-yloxy)-6-methoxyquinazoline
                                              288384-13-4P,
                               288384-18-9P, 4-(2,3-Dimethylindol-5-
3-(Ethylsulfonyl)-1-propanol
ylamino) - 7 - hydroxy - 6 - methoxyquinazoline
                                         288384-20-3P,
7-Benzyloxy-4-(2,3-dimethylindol-5-ylamino)-6-methoxyquinazoline
288384-22-5P, 3-(tert-Butyldimethylsilyloxy)-1-(1H-1,2,4-triazolyl)propane
               288384-41-8P, 4-Chloro-6-methoxy-7-[3-(N-methyl-N-
288384-23-6P
methylsulfonylamino)propoxy]quinazoline
                                          288384-44-1P,
4-(4-Bromo-2-fluorophenoxy)-7-[3-(N-tert-butoxycarbonylamino)propoxy]-6-
methoxyquinazoline
                    288384-45-2P, 7-(3-Aminopropoxy)-4-(4-bromo-2-
fluorophenoxy) -6-methoxyquinazoline
                                      288384-46-3P, 4-(4-Bromo-2-
fluorophenoxy)-6-methoxy-7-[3-(N-methylsulfonylamino)propoxy]quinazoline
288384-47-4P, 4-(4-Bromo-2-fluorophenoxy)-6-methoxy-7-[3-(N-methyl-N-
methylsulfonylamino)propoxy]quinazoline
                                          288384-48-5P
                                                         288384-53-2P,
2-Chloro-3-fluoro-7-methoxyquinoline
                                       288384-54-3P, 3-Fluoro-7-
methoxyquinoline
                   288384-55-4P, 3-Fluoro-7-hydroxyquinoline
288384-56-5P, 3-Fluoro-7-hydroxy-2-methylquinoline
                                                     288384-58-7P,
                                       288384-60-1P, 7-(2,3-Epoxypropoxy)-
3-Fluoro-7-methoxy-2-methylquinoline
6-methoxy-4-(2-methylindol-5-yloxy)quinazoline
                                                 288384-61-2P,
                                    288384-62-3P, 5-Benzyloxy-2-nitro-4-
5-Hydroxy-6-trifluoromethylindole
(trifluoromethyl)benzeneacetonitrile
                                       288384-66-7P, Ethyl
7-chloro-5-hydroxyindole-2-carboxylate
                                         288384-68-9P, Ethyl
                                         288384-72-5P
7-chloro-5-methoxyindole-2-carboxylate
                                                        288384-74-7P,
4-(4-Chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methylpiperazin-1-
                         288384-77-0P, 4-Chloro-6-methoxy-7-(2-
yl)propoxy]quinazoline
piperidinoethoxy) quinazoline
                              288384-91-8P, 2-Chloro-5-
                       288384-98-5P, 3-Cyano-7-hydroxyquinoline
hydroxybenzimidazole
288385-08-0P, 6-Methoxy-7-(3-morpholinopropoxy)-4-[(1-tert-butoxycarbonyl-
1,2,3,4-tetrahydroquinolin-6-yl)oxy]quinazoline
                                                  288385-13-7P,
6-Hydroxy-4-(1-tert-butoxycarbonyl)-1,2,3,4-tetrahydroquinoline
288385-15-9P, 4-((1-tert-Butoxycarbonyl-2,3-dihydroindol-5-yl)oxy)-6-
methoxy-7-[3-(pyrrolidin-1-yl)propoxy]quinazoline
                                                    288385-24-0P,
4-((1-tert-Butoxycarbonyl-2,3-dihydroindol-5-yl)oxy)-6-methoxy-7-((1-
                                           288385-40-0P,
methylpiperidin-4-yl) methoxy) quinazoline
7-Hydroxy-4-(indol-5-ylamino)-6-methoxyquinazoline
                                                     288385-42-2P,
7-Benzyloxy-4-(indol-5-ylamino)-6-methoxyquinazoline hydrochloride
288385-46-6P, 7-Hydroxy-6-methoxy-4-(2-methylindol-5-ylamino)quinazoline
288385-48-8P, 7-Benzyloxy-6-methoxy-4-(2-methylindol-5-ylamino)quinazoline
                288385-56-8P, 3-[(4-Methyl-4H-1,2,4-triazol-3-
hydrochloride
                          288385-69-3P, 3-[[N-(2,6-Dimethyl-4-pyridyl)-N-
yl)sulfanyl]propan-1-ol
methyl]amino]propan-1-ol
                           288385-85-3P, 4-Chloro-6-methoxy-7-[(1-
(cyanomethyl)piperidin-4-yl)methoxy]quinazoline
                                                  288385-87-5P,
6-Methoxy-7-(piperidin-4-ylmethoxy)-3-[(pivaloyloxy)methyl]-3,4-
dihydroquinazolin-4-one
                          288385-88-6P, 4-Fluoro-5-hydroxy-2-methylindole
288385-89-7P, 4-Fluoro-5-methoxyindole
                                         288385-90-0P,
4-Fluoro-5-methoxy-1-tert-butoxycarbonylindole
                                                 288385-91-1P,
6-Fluoro-5-methoxy-1-tert-butoxycarbonylindole
                                                 288385-92-2P,
                                    288385-93-3P, 4-Fluoro-5-methoxy-2-
6-Fluoro-5-methoxy-2-methylindole
               288385-96-6P, 1,2-Difluoro-3-(2,2-dimethoxypropyl)-4-
methylindole
               288385-98-8P, 3-Acetylmethyl-1-benzyloxy-2-fluoro-4-
nitrobenzene
               288385-99-9P, 3-Acetylmethyl-2-fluoro-1-methoxy-4-
nitrobenzene
               288386-02-7P, 4-Chloro-6-methoxy-7-[2-(1-methylpiperidin-4-
nitrobenzene
yl) ethoxy quinazoline
                        288386-04-9P, 4-Fluoro-5-hydroxyindole
288386-07-2P, 7-[2-(1-(tert-Butoxycarbonyl)piperidin-4-yl)ethoxy]-6-
methoxy-3-[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one
288386-09-4P, 7-[2-(Piperidin-4-yl)ethoxy]-6-methoxy-3-
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[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one
                                                    288386-11-8P,
7-[2-(1-Methylpiperidin-4-yl)ethoxy]-6-methoxy-3-[(pivaloyloxy)methyl]-3,4-
dihydroquinazolin-4-one 288386-13-0P, 7-[2-(1-Methylpiperidin-4-
yl)ethoxy]-6-methoxy-3,4-dihydroquinazolin-4-one
                                                   288386-15-2P,
6-Fluoro-5-hydroxyindole
                           288386-20-9P
                                         288386-22-1P,
5-Cyanomethyl-2-fluoro-4-nitrobenzyloxybenzene
                                                 288386-29-8P,
6-Fluoro-5-hydroxy-2-methylindole 288386-37-8P, (R)-7-[2-Acetoxy-3-
(pyrrolidin-1-yl)propoxy]-4-(4-fluoro-2-methylindol-5-yloxy)-6-
                   288386-39-0P, (R)-7-(Oxiran-2-ylmethoxy)-6-methoxy-3-
methoxyquinazoline
[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one
                                                    288386-41-4P,
(R) -7-(2-Hydroxy-3-(pyrrolidin-1-yl)propoxy)-6-methoxy-3-
((pivaloyloxy)methyl) -3,4-dihydroquinazolin-4-one
                                                    288386-43-6P,
(R) -7-[2-Hydroxy-3-(pyrrolidin-1-yl)propoxy]-6-methoxy-3,4-
                         288386-44-7P, (R)-7-[2-Acetoxy-3-(pyrrolidin-1-
dihydroquinazolin-4-one
yl)propoxy]-6-methoxy-3,4-dihydroquinazolin-4-one 288386-46-9P,
(R) -7-[2-Acetoxy-3-(pyrrolidin-1-yl)propoxy]-4-chloro-6-methoxyquinazoline
               288386-71-0P, (R)-6-Methoxy-4-(2-methylindol-5-yloxy)-7-
288386-66-3P
(oxiran-2-ylmethoxy)quinazoline
                                 288386-75-4P, 7-Benzyloxy-6-methoxy-4-(3-
methylindol-5-yloxy)quinazoline 288387-15-5P, 4-Bromo-5-hydroxyindole
288387-21-3P, (R)-4-(Indol-5-yloxy)-6-methoxy-7-(oxiran-2-
                      288387-27-9P, (S)-4-(Indol-5-yloxy)-6-methoxy-7-
ylmethoxy) quinazoline
(oxiran-2-ylmethoxy) quinazoline 288387-39-3P, (S)-6-Methoxy-4-(2-
methylindol-5-yloxy)-7-(oxiran-2-ylmethoxy)quinazoline 288387-48-4P,
Ethyl 5-hydroxy-4-nitroindole-2-carboxylate 288387-49-5P,
5-Methoxy-4-nitroindole-2-carboxylic acid 288387-52-0P,
7-(3-Bromopropoxy)-4-(1H-indol-5-yloxy)-6-methoxyquinazoline
288387-54-2P, (S)-5-(p-Toluenesulfonylmethyl)-1-methyl-2-pyrrolidinone
288387-58-6P, (R)-5-(p-Toluenesulfonylmethyl)-2-pyrrolidinone
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (intermediate; preparation of quinazolines as angiogenesis inhibitors by
   cyclization of 2-aminobenzamides and subsequent derivatization)
59-31-4, 2-Hydroxyguinoline
                             86-79-3, 2-Hydroxycarbazole
                                                            87-13-8,
Diethyl ethoxymethylenemalonate
                                 90-15-3, 1-Naphthol
                                                        98-00-0,
2-Furanmethanol
                 100-37-8, N, N-Diethylethanolamine
                                                      100-55-0,
                          102-51-2, 4-Methoxy-1,2-phenylenediamine
3-Hydroxymethyl pyridine
104-58-5, 1-(3-Hydroxypropyl)piperidine
                                        107-13-1, 2-Propenenitrile,
            108-01-0, N,N-Dimethylethanolamine
                                                109-01-3,
1-Methylpiperazine
                    109-64-8, 1,3-Dibromopropane
                                                    109-70-6,
1-Bromo-3-chloropropane
                          109-83-1, 2-(Methylamino)ethanol
                                                            110-65-6,
2-Butyne-1,4-diol 110-89-4, Piperidine, reactions
                                                      110-91-8,
Morpholine, reactions
                      111-77-3, 2-(2-Methoxyethoxy) ethanol
                                    121-34-6, 4-Hydroxy-3-methoxybenzoic
Triethylene glycol monomethyl ether
       123-00-2, 4-(3-Aminopropyl)morpholine
                                              123-56-8,
Pyrrolidine-2,5-dione
                        135-19-3, 2-Hydroxynaphthalene, reactions
137-00-8, 5-(2-Hydroxyethyl)-4-methylthiazole
                                               140-53-4,
                                       141-97-9, Ethyl acetoacetate
4-Chlorophenylacetonitrile
                           140-88-5
                               177-11-7, 4,4-(Ethylenedioxy)piperidine
156-87-6, 3-Amino-1-propanol
288-36-8, 1,2,3-Triazole
                          288-88-0, 1H-1,2,4-Triazole 348-62-9,
4-Chloro-2-fluorophenol
                          403-19-0, 2-Fluoro-4-nitrophenol
                                                            455-93-6,
2-Fluoro-4-nitroanisole
                          505-10-2, 3-(Methylthio)-1-propanol
                                                                533-30-2,
6-Aminobenzothiazole
                      536-90-3
                                 578-67-6, 5-Hydroxyquinoline
                                                                 580-16-5,
6-Hydroxyquinoline
                    580-20-1, 7-Hydroxyquinoline 582-17-2,
                           617-05-0, Ethyl 3-methoxy-4-hydroxybenzoate
2,7-Dihydroxynaphthalene
622-40-2, 4-(2-Hydroxyethyl)morpholine 622-93-5, 3-(N,N-Diethylamino)-1-
propanol 627-18-9, 3-Bromo-1-propanol 627-30-5, 3-Chloropropan-1-ol
628-89-7, 2-(2-Chloroethoxy)ethanol 771-69-7, 1,2,3-Trifluoro-4-
              777-37-7, 2-Chloro-5-nitrotrifluoromethylbenzene
nitrobenzene
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IT

1076-74-0, 5-Methoxy-2-

828-94-4, 2,3-Dimethyl-5-methoxyindole

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(starting material; preparation of quinazolines as angiogenesis inhibitors by cyclization of 2-aminobenzamides and subsequent derivatization)
39062-69-6P, 2-Benzyloxy-5-nitrotrifluoromethylbenzene

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of quinazolines as angiogenesis inhibitors by cyclization of 2-aminobenzamides and subsequent derivatization)

RN 39062-69-6 HCAPLUS

CN Benzene, 4-nitro-1-(phenylmethoxy)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

IT

IT **1953-54-4**, 5-Hydroxyindole

RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material; preparation of quinazolines as angiogenesis inhibitors by cyclization of 2-aminobenzamides and subsequent derivatization)

RN 1953-54-4 HCAPLUS

CN 1H-Indol-5-ol (9CI) (CA INDEX NAME)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 14 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1999:355614 HCAPLUS

DOCUMENT NUMBER:

131:31808

TITLE:

Preparation of phthalic acid diamides as agricultural

and horticultural insecticides

INVENTOR(S):

Tohnishi, Masanori; Nakao, Hayami; Kohno, Eiji; Nishida, Tateki; Furuya, Takashi; Shimizu, Toshiaki; Seo, Akira; Sakata, Kazuyuki; Fujioka, Shinsuke;

Kanno, Hideo

PATENT ASSIGNEE(S):

Nihon Nohyaku Co., Ltd., Japan

SOURCE:

Eur. Pat. Appl., 237 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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$$X_n$$
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$$NR^{1}R^{2}$$
 $NR^{3}$ 
 $Z^{2}$ 
 $Y_{m}$ 

AB The title compds. [I; R1-R3 = H, CN, cycloalkyl, etc.; X = H, CN, NO2, etc.; n = 1-4; Y = H, halo, CN, etc.; m = 1-5; Z1, Z2 = O, S] which show excellent activities for controlling injurious insects, were prepared Thus, reaction of 3-nitro-2-ethoxycarbonylbenzoyl chloride with 4-chloro-2-methylaniline in the presence of Et3N in THF followed by treatment of the resulting Et 6-nitro-N-(4-chloro-2methylphenyl)phthalamate with isopropylamine in dioxane afforded I [R1 = iPr; R2 = R3 = H; X = 3-NO2; Y = 2-Me-4-C1; Z1 = Z2 = O] which showed excellent insecticidal effect (100% mortality) against diamondback moth and common cutworm.

IC ICM C07C233-64

C07C235-42; C07C317-32; C07C323-42; C07D295-192; A01N037-18; A01N043-00; A01N043-84; A01N057-00

- CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds) Section cross-reference(s): 5
- 226958-87-8P IT 16497-37-3P 16497-38-4P 226958-88-9P 226958-89-0P 226958-90-3P 226958-91-4P 226958-92-5P 226958-93-6P 226958-94-7P

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RL: AGR (Agricultural use); BAC (Biological activity or effector, except
adverse); BSU (Biological study, unclassified); SPN (Synthetic
preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
   (preparation of phthalic acid diamides as agricultural and horticultural
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RL: AGR (Agricultural use); BAC (Biological activity or effector, except
adverse); BSU (Biological study, unclassified); SPN (Synthetic
preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
   (preparation of phthalic acid diamides as agricultural and horticultural
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226966-30-9P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except
adverse); BSU (Biological study, unclassified); SPN (Synthetic
preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
   (preparation of phthalic acid diamides as agricultural and horticultural
   insecticides)
95-69-2, 4-Chloro-2-methylaniline
                                   117-21-5, 3-Chlorophthalic
            461-82-5, 4-Trifluoromethoxyaniline 641-70-3
                                                             2253-73-8,
Isopropyl isothiocyanate 28394-52-7 28418-88-4, 3-Iodophthalic
anhydride
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                       39211-57-9
                                      226979-96-0
                                                    226979-97-1
226979-98-2
RL: RCT (Reactant); RACT (Reactant or reagent)
   (preparation of phthalic acid diamides as agricultural and horticultural
   insecticides)
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226963-84-4P 226966-20-7P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except
adverse); BSU (Biological study, unclassified); SPN (Synthetic
preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
   (preparation of phthalic acid diamides as agricultural and horticultural
   insecticides)
226960-70-9 HCAPLUS
1,2-Benzenedicarboxamide, 3-chloro-N1-[4-(difluoromethoxy)-3-
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IT

IT

RN

CN

(trifluoromethyl)phenyl]-N2-(1-methylethyl)- (9CI) (CA INDEX NAME)

RN 226961-60-0 HCAPLUS

CN 1,2-Benzenedicarboxamide, 3-chloro-N2-[4-(difluoromethoxy)-3-(trifluoromethyl)phenyl]-N1-(1-methylethyl)- (9CI) (CA INDEX NAME)

RN 226963-22-0 HCAPLUS

CN 1,2-Benzenedicarboxamide, N1-[4-(difluoromethoxy)-3-(trifluoromethyl)phenyl]-3-iodo-N2-(1-methylethyl)- (9CI) (CA INDEX NAME)

RN 226963-84-4 HCAPLUS

CN 1,2-Benzenedicarboxamide, N2-[4-(difluoromethoxy)-3-(trifluoromethyl)phenyl]-3-iodo-N1-(1-methylethyl)- (9CI) (CA INDEX NAME)

RN226966-20-7 HCAPLUS

1,2-Benzenedicarboxamide, N1-[4-(difluoromethoxy)-3-CN

(trifluoromethyl)phenyl]-N2-(1-methylethyl)-3-nitro- (9CI) (CA INDEX

IT 95-69-2, 4-Chloro-2-methylaniline

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of phthalic acid diamides as agricultural and horticultural insecticides)

95-69-2 HCAPLUS RN

Benzenamine, 4-chloro-2-methyl- (9CI) (CA INDEX NAME) CN

L33 ANSWER 15 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1997:192042 HCAPLUS

DOCUMENT NUMBER:

126:185882

TITLE:

Substituted cinnamic acid guanidides, process for

their preparation, their use as cardiovascular

medicament or diagnostic agent, as well as medicament

containing them

INVENTOR(S):

Schwark, Jan-Robert; Brendel, Joachim; Kleemann,

Heinz-Werner; Lang, Hans-Jochen; Weichert, Andreas;

Albus, Udo; Scholz, Wolfgang

PATENT ASSIGNEE(S):

Hoechst A.-G., Germany

SOURCE:

Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 755919	A2	19970129	EP 1996-111665	19960719
EP 755919	A3	19970409	•	
EP 755919	B1	19991117		
R: AT, BE, CH,	DE, DK	, ES, FI, FR	G, GB, GR, IE, IT, LI,	LU, NL, PT, SE

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DE 19527305
                         A1
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                                                                  19950726
                                           PL 1996-314279
     PL 183439
                         B1
                                20020628
                                                                  19960516
     AT 186720
                         E
                                19991215
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     ES 2140765
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     TW 536531
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                               20000427
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                                                                   20000114
PRIORITY APPLN. INFO.:
                                           DE 1995-19527305
                                                               A 19950726
OTHER SOURCE(S):
                        MARPAT 126:185882
     Substituted cinnamic acid guanidides, such as E-3-(4-
     Me2NC6H4)CH:CMeCON:N(NH2)2, were prepared by the reaction of lithiated
     tri-Et 2-phosphonopropionate in hexane with 4-Me2NC6H4CHO, the resulting
     ester saponified, followed by reaction with cinnamic acid guanidide. These
     substituted cinnamic acid guanidides were tested as inhibitors for Na+/H+
     exchange by rabbit erythrocytes, indicating their use as cardiovascular
     drugs or diagnostic agents.
IC
     ICM C07C279-22
     ICS C07D213-65; C07D213-70; A61K031-155; A61K031-44
CC
     25-9 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
     Section cross-reference(s): 1
     99-07-0, 3-Dimethylaminophenol
IT
                                      100-10-7, 4-
     (Dimethylamino) benzaldehyde 109-00-2, 3-Hydroxypyridine
                          539-15-1, 4-(2-Dimethylaminoethyl)phenol
     4-Fluorobenzaldehyde
     3699-66-9, Triethyl 2-phosphonopropionate 4556-23-4, 4-Mercaptopyridine
     26934-35-0, 4-(3-Dimethylaminopropoxy)benzaldehyde
                                                        58551-83-0,
     2,4,6-Trifluorobenzaldehyde
                                  67515-60-0, 4-Fluoro-3-
                                   132123-54-7, 3,4,5-Trifluorobenzaldehyde
     trifluoromethylbenzaldehyde
     148901-53-5, 3-Cyano-4-dimethylamino-2-fluorobenzaldehyde 187541-47-5
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (for preparation of substituted cinnamic acid guanidides)
IT
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     187541-68-0P
                    187541-69-1P
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     (Reactant or reagent)
        (for preparation of substituted cinnamic acid guanidides)
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     187541-45-3P
                   187541-46-4P
                                  187541-70-4P
    RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
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(preparation and use as cardiovascular drugs or diagnostic agents)

IT 99-07-0, 3-Dimethylaminophenol

RL: RCT (Reactant); RACT (Reactant or reagent)

(for preparation of substituted cinnamic acid guanidides)

RN 99-07-0 HCAPLUS

CN Phenol, 3-(dimethylamino)- (9CI) (CA INDEX NAME)

IT 187541-55-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(for preparation of substituted cinnamic acid guanidides)

RN 187541-55-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-3-[4-(3-pyridinyloxy)-3-

(trifluoromethyl)phenyl]-, ethyl ester, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

IT 187541-38-4P

RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and use as cardiovascular drugs or diagnostic agents)

RN 187541-38-4 HCAPLUS

CN 2-Propenamide, N-(aminoiminomethyl)-2-methyl-3-[4-(3-pyridinyloxy)-3-(trifluoromethyl)phenyl]-, dihydrochloride, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

●2 HCl

L33 ANSWER 16 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1995:582559 HCAPLUS

DOCUMENT · NUMBER :

122:314573

TITLE:

Preparation of imidazolylquinoxalinedione derivatives

as glutamate receptor antagonists

INVENTOR(S):

Sakamoto, Shuichi; Shishikura, Jun-ichi; Iwata,

Masahiro; Okada, Masamichi; Sasamata, Masao

PATENT ASSIGNEE(S):

Yamparm, Japan

SOURCE:

PCT Int. Appl., 103 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT	KIN	KIND DATE				APPLICATION NO.						DATE						
WO 9426	WO 9426737					A1 19941124				WO 1994-JP758						19940511		
₩:	AU,	BB,	BG,	BR,	BY,	CA,	CN,	CZ,	FI,	GE,	HU,	JP,	KG,	KR,	ΚZ,	LK,		
	LV,	MD,	MG,	MN,	MW,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SI,	SK,	TJ,	TT,		
	UA,	US,	UZ,	VN														
RW:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,		
	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	ML,	MR,	NE,	SN,	TD,	TG				
AU 9466	A1 19941212				AU 1994-66903					1	9940	511						
PRIORITY APP						JP 1	993-	1340	3 3		A 1	9930!	512					
							JP 1	993-	29652	25		A 1	9931	126				
						1	WO 1	994-	JP758	ġ.	1	w 1	9940	511				

OTHER SOURCE(S):

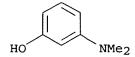
MARPAT 122:314573

GI

$$\begin{array}{c|c}
R^1 & R^2 \\
N & N \\
N & N \\
N & O \\
X-A-R^3 & I
\end{array}$$

- AB Title compds. I [R1 = H, alkyl; R2 = H, OH; X = O, NR4, S(O)m; R3 = alkyl, carboxy, or (un)substituted Ph, cycloalkyl or mono- or bicyclic heterocyclic group; R4 = H, alkyl; n = 0, 1, 2; A = direct bond, alkylene] and their pharmaceutically acceptable salts, useful as glutamate receptor antagonists, psychotropics, nerve cell protecting agents, and for treatment of brain ischemia, were prepared Thus, reduction of 5-(1H-imidazol-1-yl)-4-methoxy-2-nitroaniline with H in MeOH in the presence of PtO2 and HCl at room temp for 2.5 h followed by cyclocondensation with oxalic acid in aqueous HCl gave 6-(1H-imidazol-1-yl)-7-methoxyquinoxaline-2,3(1H,4H)-dione hydrochloride. 4-{[4-Hydroxy-7-(1H-imidazol-1-yl)-2,3-dioxo-1,2,3,4-tetrahydroquinoxalin-6-yl]oxymethyl}benzoic acid hydrochloride showed nerve cell protection activity in mice.
- IC ICM C07D403-04 ICS A61K031-495
- CC 28-17 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1, 63 99-07-0, Phenol, 3-(dimethylamino)-99-76-3, Benzoic acid, IT4-hydroxy-, methyl ester 108-95-2, Phenol, reactions 109-00-2, 119-36-8, Benzoic acid, 2-hydroxy-, methyl ester 144-62-7. Oxalic acid, reactions 288-32-4, 1H-Imidazole, reactions 617-05-0, 619-08-9, Phenol, Benzoic acid, 4-hydroxy-3-methoxy-, ethyl ester 2-chloro-4-nitro- 623-51-8, Acetic acid, mercapto-, ethyl ester 767-00-0, Benzonitrile, 4-hydroxy- 822-36-6, 1H-Imidazole, 4-methyl-872-35-5, 1H-Imidazole-2-thiol 1679-07-8, Cyclopentanethiol 3943-74-6, Benzoic acid, 4-hydroxy-3-methoxy-, methyl ester 4892-02-8, Benzoic acid, 2-mercapto-, methyl ester 6302-65-4, Benzoic acid, 4-mercapto-, methyl ester 10041-02-8, Phenol, 4-(1H-imidazol-1-yl)-16357-41-8, Benzoic acid, 3-chloro-4-hydroxy-, ethyl ester 19438-10-9, Benzoic acid, 3-hydroxy-, methyl ester 22479-95-4, 1,2-Benzenedicarboxylic acid, 4-hydroxy-, dimethyl ester 29490-19-5 29655-46-7, Carbamic acid, [2-(4-hydroxyphenyl)ethyl]-, phenylmethyl ester 51138-06-8, 5H-Tetrazole-5-thione, 1,2-dihydro-1-methyl-, sodium salt 51991-39-0 56069-35-3, Benzoic acid, 2-chloro-4-hydroxy-, ethyl ester 154164-63-3 163485-27-6 163485-15-2 163485-18-5 163485-21-0 163485-24-3 163485-30-1 163485-34-5 163485-43-6 163485-46-9 163485-53-8 163485-56-1 RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of imidazolylquinoxalinedione derivs. as glutamate receptor antagonists) IT 163484-52-4P 163484-53-5P 163484-54-6P 163484-55-7P 163484-56-8P 163484-57-9P 163484-58-0P 163484-59-1P 163484-60-4P 163484-61-5P 163484-62-6P 163484-63-7P 163484-64-8P 163484-65-9P 163484-66-0P 163484-67-1P 163484-68-2P 163484-69-3P 163484-70-6P 163484-71-7P 163484-72-8P 163484-73-9P 163484-75-1P 163484-76-2P 163484-77-3P 163484-78-4P 163484-79-5P 163484-80-8P 163484-81-9P 163484-82-0P 163484-83-1P 163484-84-2P 163484-85-3P 163484-86-4P 163484-87-5P 163484-89-7P 163484-90-0P 163484-91-1P 163484-92-2P 163484-93-3P 163484-94-4P 163484-95-5P 163484-96-6P 163484-97-7P 163484-98-8P 163484-99-9P RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of imidazolylquinoxalinedione derivs. as glutamate receptor antagonists) IT 99-07-0, Phenol, 3-(dimethylamino)-RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of imidazolylquinoxalinedione derivs. as glutamate receptor antagonists) 99-07-0 HCAPLUS RNCNPhenol, 3-(dimethylamino)- (9CI) (CA INDEX NAME)



# IT 163484-98-8P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

RN 163484-98-8 HCAPLUS

CN Benzoic acid, 4-[[1,2,3,4-tetrahydro-4-hydroxy-7-(1H-imidazol-1-yl)-2,3-

dioxo-6-quinoxalinyl]oxy]-3-(trifluoromethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

L33 ANSWER 17 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1993:582847 HCAPLUS

DOCUMENT NUMBER:

119:182847

TITLE:

AUTHOR (S):

Synthesis and nonlinear optical properties of

donor-acceptor substituted triaryl azole derivatives Moylan, Christopher R.; Miller, Robert D.; Twieg,

Robert J.; Betterton, Kathleen M.; Lee, Victor Y.;

Matray, Tracy J.; Nguyen, Cattien

CORPORATE SOURCE:

Almaden Res. Cent., IBM, San Jose, CA, 95120-6099, USA

SOURCE:

Chemistry of Materials (1993), 5(10), 1499-508

CODEN: CMATEX; ISSN: 0897-4756

DOCUMENT TYPE:

Journal LANGUAGE: English

A variety of optically nonlinear chromophores containing a 5-membered AB imidazole, oxazole, or thiozole ring were prepared and characterized. consisted of 2,4,5-triphenyl-substituted azole heterocyclic systems in which the 2-aryl ring bore an electron-withdrawing substituent and the 4,5-aryl rings bore an electron-donating substituent. Addnl., some planar analogs, phenanthro[9,10-d]imidazoles, were also prepared and evaluated. The utility of these chromophores was dictated by their linear absorption wavelength and oscillator strength, microscopic optical nonlinearity, ground-state dipole moment, thermal stability, and solubility The trade offs between these structure-dependent properties were discussed with regard to exploitation of these chromophores as guest dyes in high-temperature thermoplastics.

41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic CC Sensitizers)

IT Dyes

> (preparation and nonlinear properties of, based on triarylazoles containing donor and acceptor substituents)

IT 71193-36-7

> RL: RCT (Reactant); RACT (Reactant or reagent) (cyclocondensation of, with nitrothiobenzamide)

IT 71193-36-7

> RL: RCT (Reactant); RACT (Reactant or reagent) (cyclocondensation of, with nitrothiobenzamide)

RN 71193-36-7 HCAPLUS

Ethanone, 2-chloro-1,2-bis(4-methoxyphenyl)- (9CI) (CA INDEX NAME) CN

L33 ANSWER 18 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1983:424003 HCAPLUS

DOCUMENT NUMBER:

99:24003

TITLE:

Reactive disazo dyes for cellulosic fibers

INVENTOR(S):

Niwa, Toshio; Hihara, Toshio.

PATENT ASSIGNEE(S):

Mitsubishi Chemical Industries Co., Ltd., Japan

SOURCE:

Ger. Offen., 103 pp.

CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
DE 3227134	A1	19830203	DE 1982-3227134	19820720		
DE 3227134	C2	19900322				
JP 58013789	A2	19830126	JP 1981-113259	19810720		
JP 01048945	B4	19891023				
JP 58109560	A2	19830629	JP 1981-208497	19811223		
JP 03032586	B4	19910513	•			
JP 58134153	A2	19830810	JP 1982-15699	19820203		
JP 03032587	B4	19910513				
GB 2105738	A1	19830330	GB 1982-20875	19820719		
GB 2105738	B2	19850522				
US 4473499	Α	19840925	US 1982-400201	19820720		
CH 649093	Α	19850430	CH 1982-4425	19820720		
PRIORITY APPLN. INFO.:			JP 1981-113259	19810720		
			JP 1981-208497	19811223		
			JP 1982-15699	19820203		
O.T						

GI

$$PhN = N \longrightarrow N \longrightarrow N \longrightarrow N$$

$$N \longrightarrow N$$

II

- AB Light- and wetfast yellow to red dyes for cellulosic textiles are described having the general formula I (R = benzene, 3-methyl-1-phenyl-5-pyrazolone, 2,6-diamino-3-cyano-4-methylpyridine, or acetoacetanilide moiety; R1, R2 = H or substituted or unsubstituted alkyl, or NR1R2 = heterocycle) with or without substituent(s) on the rings A and B. Thus, reaction of 4-[[4-(phenylazo)-1-naphthyl]azo]phenol [6253-10-7] with 2-(dibutylamino)-4,6-difluoro-s-triazine [84875-65-0] in N-methylpyrrolidone containing Et3N gave II [85401-48-5] which produced fast yellowish brown prints on 65:35 polyester-cotton fabric. Numerous other I (>200) are described.
- IC C09B062-09; D06P003-66; D06P001-04
- CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
- IT Dyes, reactive

 $\mathbf{IT}$ 

(disazo compds., aminofluorotriazinyloxy group-containing, for cellulosic textiles)

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                           85399-56-0
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                                                      85399-58-2
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                           85399-61-7
                                         85399-62-8
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                                         85399-67-3
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             85425-89-4
                           85425-90-7
                                         85425-91-8
                                                      85425-92-9
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85425-93-0 85425-94-1

RL: TEM (Technical or engineered material use); USES (Uses) (dye, for cellulosic textiles)

IT 85403-47-0 85403-48-1

RL: TEM (Technical or engineered material use); USES (Uses) (dye, for cellulosic textiles)

RN 85403-47-0 HCAPLUS

CN 3H-Pyrazol-3-one, 4-[[4-[[4-[[4-(diethylamino)-6-fluoro-1,3,5-triazin-2-yl]oxy]-3-(trifluoromethyl)phenyl]azo]phenyl]azo]-2,4-dihydro-5-methyl-2-phenyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & \\ N & & \\ N & & \\ N & \\ N$$

RN 85403-48-1 HCAPLUS

CN Acetamide, N-[5-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]-2-[[4-[[4-fluoro-6-[[(4-methylphenyl)methyl]amino]-1,3,5-triazin-2-yl]oxy]-3-(trifluoromethyl)phenyl]azo]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

L33 ANSWER 19 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1979:137862 HCAPLUS

DOCUMENT NUMBER:

90:137862

TITLE: 2-Aryloxy-2-(phenoxyalkoxy)phenyl acetic acid and

esters

INVENTOR(S): McEvoy, Francis J.; Albright, Jay D.

PATENT ASSIGNEE(S): American Cyanamid Co., USA

SOURCE: U.S., 16 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE ·	APPLICATION NO.	DATE
US 4125732	Α	19781114	US 1977-794510	19770506
ZA 7802041	Α	19790328	ZA 1978-2041	19780410
AU 7835157	A1	19791025	AU 1978-35157	19780417
FI 7801298	Α	19781107	FI 1978-1298	19780426
NL 7804504	Α	19781108	NL 1978-4504	19780426
DE 2819263	A1	19781116	DE 1978-2819263	19780502
BE 866721	A1	19781106	BE 1978-187405	19780505
DK 7801978	Α	19781107	DK 1978-1978	19780505
SE 7805185	Α	19781107	SE 1978-5185	19780505
FR 2389594	A1	19781201	FR 1978-13417	19780505
FR 2389594	B1	19801031		
DD 136134	C	19790620	DD 1978-205215	19780505
ES 469496	A1	19790916	ES 1978-469496	19780505
HU 19069	0	19801128	HU 1978-AE529	19780505
JP 53137928	A2	19781201	JP 1978-53998	19780506
ES 471826	A1	19791016	ES 1978-471826	19780718
PRIORITY APPLN. INFO.:			US 1977-794510	A 19770506
GI .				•

AB Seventy-one hypolipidemic compds. I [R = 3,4- Me2C6H3, 3,4-MeClC6H3, 4,2-Me3CClC6H3, 5-indanyl, 5,6,7,8-tetrahydro-2- naphthyl, 3-, 4-R4C6H3 (R4 = H, Cl, cyano, Cl-4 alkyl, CF3, PhO, PhCH2O, cyclohexyl); R1 = F, Cl, CF3, CMe3; R2 = H, Cl-6 alkyl; R3 = H, Cl-4 alkyl; Z = (CH2)n (n = 1, 2, 3), CHMeCH2, CH2CHMe] and the pharmaceutically acceptable salts of I (R3 = H) were prepared Thus, a mixture of KI, (Me2N)3PO, and 4-ClC6H4OCH2Cl in AcNMe2 was added to NaH and 4-HOC6H4CH2CO2Me in AcNMe2, the product 4-(4-ClC6H4OCH2O)C6H4CH2CO2Me brominated with N-bromosuccinimide, the resulting 4-(4-ClC6H4OCH2O)C6H4CHBrCO2Me etherified with 3,4-Me2C6H4OH and NaH, and the product 4-(4-ClC6H4OCH2O)C6H4CH(OC6H3Me2-3,4)CO2R5 (II, R5 = Me) saponified to give II (R5 = H). At 0.1% in the diet of rats, II (R5 = H) lowered serum sterols 37% and serum triglycerides 64%.

IC C07C065-14

NCL 560062000

CC 28-18 (Heterocyclic Compounds (More Than One Hetero Atom))

IT 59-50-7 95-65-8 98-17-9 98-28-2 98-54-4 **99-07-0** 99-89-8 103~16-2 106-48-9 108-43-0 371-41-5 402-45-9 585-34-2 713-68-8 767-00-0 831-82-3 1131-60-8 1470-94-6 RL: RCT (Reactant); RACT (Reactant or reagent)

(etherification of bromo[(phenoxymethoxy)phenyl]acetates by) 69182-75-8P 69182-85-0P 69182-89-4P IT69182-93-0P 69182-96-3P 69182-97-4P 69183-28-4P 69183-36-4P 69183-45-5P 69183-49-9P 69183-56-8P 69183-61-5P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and etherification of, by phenols) IT 99-07-0 RL: RCT (Reactant); RACT (Reactant or reagent) (etherification of bromo[(phenoxymethoxy)phenyl]acetates by) RN99-07-0 HCAPLUS Phenol, 3-(dimethylamino)- (9CI) (CA INDEX NAME) CN

RN 69182-85-0 HCAPLUS
CN Benzeneacetic acid, α-bromo-4-[2-[4-(1,1-dimethylethyl)phenoxy]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)

RN 69182-89-4 HCAPLUS CN Benzeneacetic acid,  $\alpha$ -bromo-4-[2-(4-chlorophenoxy)ethoxy]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & Br \\ \parallel & \parallel \\ \\ MeO-C-CH \\ \hline \\ O-CH_2-CH_2-O \\ \end{array}$$

RN 69182-97-4 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-[3-(4-chlorophenoxy)propoxy]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & Br \\ \parallel & \parallel \\ MeO-C-CH \\ \hline \\ O-(CH_2)_3-O \\ \end{array}$$

RN 69183-28-4 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-[2-(4-chlorophenoxy)-1-methylethoxy]-, methyl ester (9CI) (CA INDEX NAME) .

RN 69183-36-4 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-[2-(4-chlorophenoxy)propoxy]-, methyl ester (9CI) (CA INDEX NAME)

RN 69183-45-5 HCAPLUS.

CN Benzeneacetic acid,  $\alpha$ -bromo-4-[2-[4-(1,1-dimethylethyl)phenoxy]propoxy]-, methyl ester (9CI) (CA INDEX NAME)

RN 69183-49-9 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-[2-(4-fluorophenoxy)propoxy]-, methyl ester (9CI) (CA INDEX NAME)

RN 69183-56-8 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-[2-[4-(trifluoromethyl)phenoxy]propoxy ]-, methyl ester (9CI) (CA INDEX NAME)

RN 69183-61-5 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-[2-(4-fluorophenoxy)ethoxy]-, methyl ester (9CI) (CA INDEX NAME)

L33 ANSWER 20 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1979:121231 HCAPLUS

DOCUMENT NUMBER:

90:121231

TITLE:

SOURCE:

Substituted p-phenoxyalkoxyphenylacetic acids and

esters of these acids

INVENTOR(S):

McEvoy, Francis Joseph; Albright, Jay Donald

PATENT ASSIGNEE(S):

American Cyanamid Co., USA Ger. Offen., 66 pp.

CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE							
DE 2819263	<b>A1</b>	19781116	DE 1978-2819263	197.80502					
US 4125732	A	19781114	US 1977-794510	19770506					
PRIORITY APPLN. INFO.:			US 1977-794510 A	19770506					

$$R \longrightarrow QQQ \longrightarrow CR^{1} (QR^{2}) CO_{2}R^{3}$$

AΒ Hypolipemic title compds. I [R = Cl, F, CF3, CMe3; R1 = H or C1-6 n-alkyl;R2 = substituted Ph, 5-indanyl or 5,6,7,8-tetrahydro-2-naphthyl; R3 = H or C1-4 alkyl; Q = (CH2)1-3, CHMeCH2 or CH2CHMe] were prepared Thus, p-ClC6H4OCH2OCBrPhCO2Me treated with p-Me3CC6H4OH in the presence of NaH and (Me2N)3PO in THF gave I (R = Cl, Rl = H, R2 = p-Me3CC6H4, R3 = Me, Q = Respectively)CH2), which, at 0.1 weight% in feed to rats, lowered their cholesterol and triglyceride levels in blood serum by 31 and 53%, resp.

C07C069-76 IC

25-18 (Noncondensed Aromatic Compounds) CC

402-45-9 95-65-8 98-54-4 **99-07-0** 106-48-9 IT 585-34-2 1470-94-6

RL: RCT (Reactant); RACT (Reactant or reagent) (condensation of, with Me bromoacetate)

IT 69183-61-5P

> RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and condensation with phenol)

IT 69182-75-8P 69182-85-0P 69182-89-4P

> 69182-93-0P 69182-96-3P 69182-97-4P 69182-99-6P

69183-02-4P 69183-03-5P 69183-04-6P 69183-06-8P 69183-07-9P

69183-28-4P 69183-36-4P 69183-45-5P

69183-49-9P 69183-56-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and condensation with phenols)

IT

RL: RCT (Reactant); RACT (Reactant or reagent) (condensation of, with Me bromoacetate)

RN99-07-0 HCAPLUS

CN Phenol, 3-(dimethylamino)- (9CI) (CA INDEX NAME)

IT69183-61-5P

> RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and condensation with phenol)

RN69183-61-5 HCAPLUS

Benzeneacetic acid,  $\alpha$ -bromo-4-[2-(4-fluorophenoxy)ethoxy]-, methyl CNester (9CI) (CA INDEX NAME)

IT 69182-75-8P 69182-85-0P 69182-89-4P 69182-97-4P 69183-28-4P 69183-36-4P 69183-45-5P 69183-49-9P 69183-56-8P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and condensation with phenols)

RN 69182-75-8 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-[(4-chlorophenoxy)methoxy]-, methyl ester (9CI) (CA INDEX NAME)

RN 69182-85-0 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-[2-[4-(1,1-dimethylethyl)phenoxy]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{O} & \text{Br} \\ \parallel & \parallel \\ \text{MeO-C-CH} \\ \hline \\ \text{O-CH}_2\text{-CH}_2\text{-O-} \\ \end{array}$$

RN 69182-89-4 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-[2-(4-chlorophenoxy)ethoxy]-, methyl ester (9CI) (CA INDEX NAME)

RN 69182-97-4 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-[3-(4-chlorophenoxy)propoxy]-, methyl ester (9CI) (CA INDEX NAME)

RN 69183-28-4 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-[2-(4-chlorophenoxy)-1-methylethoxy]-,

methyl ester (9CI) (CA INDEX NAME) .

RN 69183-36-4 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-[2-(4-chlorophenoxy)propoxy]-, methyl ester (9CI) (CA INDEX NAME)

RN 69183-45-5 HCAPLUS

.CN Benzeneacetic acid, α-bromo-4-[2-[4-(1,1-dimethylethyl)phenoxy]propoxy]-, methyl ester (9CI) (CA INDEX NAME)

RN 69183-49-9 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-[2-(4-fluorophenoxy)propoxy]-, methyl ester (9CI) (CA INDEX NAME)

RN 69183-56-8 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -bromo-4-[2-[4-(trifluoromethyl)phenoxy]propoxy]-, methyl ester (9CI) (CA INDEX NAME)

L33 ANSWER 21 OF 21 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1972:566158 HCAPLUS

DOCUMENT NUMBER:

77:166158

TITLE: INVENTOR(S): Azo dyes for polyamide fibers Tanaka, Yoshio; Itani, Takashi Sumitomo Chemical Co., Ltd.

PATENT ASSIGNEE(S):

Jpn. Tokkyo Koho, 6 pp.

SOURCE:

CODEN: JAXXAD

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1 .

PATENT INFORMATION:

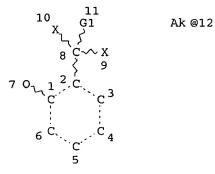
FAIL	NI INFORMATION.				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
				JP 1969-17032	
AB	Azo dyes (I) were p	repared	which were	used to dye wool and	nylon light- and
				-MeC6H4OC6H3(CF3)NH2 1-5-pyrazolone was to	
				10-15.deg. to give a	
	C1; Y = 5-C1; 4-SO3	H; Z =	HO; 4-CF3; R	= H) [36956-61-3].	Also prepared
				CF3; $R = Me$ ) and I(	X = C1; Y = H;
IC	5-SO3H; Z = HO; 2-C CO9B	F3; R =	H).		
CC		cent Wh	itening Agen	ts, and Photosensiti	zers)
IT	Dyes, reactive		-		
	([[(sulfooxy)eth	yl]sulf	onyl][[(trif	[luoromethyl)phenoxy]	benzyl]propanami
IT	de <b>azo</b> derivs., 36956-61-3P 38889			fibers)	
т.т	RL: IMF (Industrial			(Preparation)	
	(preparation of)			,	
IT	38889-20-2P				
	RL: IMF (Industrial (preparation of)		cture); PREF	(Preparation)	
RN	38889-20-2 HCAPLUS				
CN			loro-3-[4,5-	dihydro-3-methyl-4-[	[4-[4-methyl[[[1-
				pyl]amino]methyl]phe	
		enyl]az	o] -5-oxo-1H-	pyrazol-1-yl]- (9CI)	(CA INDEX
	NAME)				

PAGE 1-A

PAGE 2-A

$$_{\rm HO_3SO-CH_2-CH_2-S-CH_2-CH_2-C-NH-CH_2-D1}^{\rm O}$$

=> d que L7 STR



VAR G1=H/X/12
NODE ATTRIBUTES:
CONNECT IS E2 RC AT 3
CONNECT IS E3 RC AT 4
CONNECT IS E2 RC AT 5
CONNECT IS E2 RC AT 6
CONNECT IS E2 RC AT 7
CONNECT IS E1 RC AT 12
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L9 3146 SEA FILE=REGISTRY SSS FUL L7 L15 STR

NODE ATTRIBUTES:

CONNECT IS E2 RC AT 2
CONNECT IS E2 RC AT 3
CONNECT IS E2 RC AT 5
CONNECT IS E2 RC AT 6
CONNECT IS E2 RC AT 7
CONNECT IS E3 RC AT 8
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISQLATED OR EMBEDDED NUMBER OF NODES IS 9

NUMBER OF NODES 15 9

STEREO ATTRIBUTES: NONE

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L17 4953 SEA FILE=REGISTRY SSS FUL L15
L18 STR
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# NODE ATTRIBUTES:

CONNECT IS E2 RC AT 2
CONNECT IS E2 RC AT 3
CONNECT IS E2 RC AT 5
CONNECT IS E2 RC AT 6
CONNECT IS E2 RC AT 7
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 9

#### STEREO ATTRIBUTES: NONE

L19	1145	SEA	FILE=REGISTR	Y SUB=L1	7 SSS FUI	L L18
L20	4291	SEA	FILE=REGISTRY	Y ABB=ON	PLU=ON	L9 OR L19
L38	3528	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	ENZYMES+PFT/CT(L)HYDROL?
L39	27271	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L38 OR HYDROL? (3A) ?ENZYME?
L40	4	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L39 AND L20
L41	169861	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	ENZYMES+PFT/CT
L42	12	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L20 AND L41 '
L43	15	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L40 OR L42

#### => d 143 ibib abs hitind hitstr 1-15

L43 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:656569 HCAPLUS

DOCUMENT NUMBER: 139:191396

TITLE: Biphenyl derivatives and their use as antiandrogenic

agents

INVENTOR(S): Labrie, Fernand; Singh, Shankar Mohan; Luu, The Van

PATENT ASSIGNEE(S): EndoRecherche, Inc., Can. SOURCE: PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.					KIND DATE			APPLICATION NO.					DATE				
	- <b></b>					_											
WO 2003068217					A1 20030821				1	WO 2	003-	CA20	8		20030214		
	W:	ΑE,	AG,	AL,	AM,	AΤ,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DΚ,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
		PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,

```
UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                             US 2003-369267
     US 2004006134
                          A1
                                 20040108
                                                                     20030214
     EP 1474127
                          A1
                                 20041110
                                             EP 2003-702233
                                                                     20030214
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
PRIORITY APPLN. INFO.:
                                             US 2002-357785P
                                                                    20020215
                                                                 Р
                                             WO 2003-CA208
                                                                 W
                                                                    20030214
OTHER SOURCE(S):
                         MARPAT 139:191396
     Biphenyl derivs. are disclosed for use in the treatment of
     androgen-dependent diseases such as prostate cancer, benign prostatic
     hyperplasia, precocious puberty, polycystic ovarian syndrome, acne,
     hirsutism, seborrhea, androgenic alopecia and premature male baldness.
     For example, some preferred compds. having the structure (formula I): are
     formulated together with pharmaceutically acceptable diluent or carrier
     for topical use in the treatment of androgen-dependent prostate cancer.
IC
     ICM A61K031-277
     ICS A61K031-085; A61P005-28; A61P017-10; A61P013-08
CC
     1-6 (Pharmacology)
     Section cross-reference(s): 63
IT
     Enzymes, biological studies
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (Prostate Short-Chain Dehydrogenase Reductase 1; biphenyl derivs. as
        antiandrogenic agents)
IT
     1591-30-6, [1,1'-Biphenyl]-4,4'-dicarbonitrile
                                                       2143-90-0
                                                                   4854-84-6
     10540-31-5
                  58743-77-4
                               86111-55-9 149537-18-8
                                                        582293-04-7
     582293-05-8
                   582293-06-9
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                                                582293-08-1
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     582294-15-3.
                   582294-16-4
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     582294-38-0
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (biphenyl derivs. as antiandrogenic agents)
IT
     149537-18-8 582293-83-2
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (biphenyl derivs. as antiandrogenic agents)
```

RN 149537-18-8 HCAPLUS

CN [1,1'-Biphenyl]-4-carbonitrile, 4'-methoxy-3'-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 582293-83-2 HCAPLUS

CN 1,1'-Biphenyl, 2,4,6-trifluoro-4'-methoxy-3'-(trifluoromethyl)- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

8

ACCESSION NUMBER: 2003:376865 HCAPLUS

DOCUMENT NUMBER: 138:385444

TITLE: Preparation of substituted adenines as drugs,

cosmetics, and agrochemical growth regulators.

INVENTOR(S): Dolezal, Karel; Popa, Igor; Holub, Jan; Lenobel, Rene;

Werbrouck, Stefaan; Strnad, Miroslav; Zatloukal, Marek

PATENT ASSIGNEE(S): Ustav Experimentalni Botaniky Akademie Ved Ceske

Republiky, Czech Rep.

SOURCE: PCT Int. Appl., 67 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
WO 2003040144	A2 20030515	WO 2002-CZ45	20020801
WO 2003040144	A3 20040226		
W: AE, AG, AL	, AM, AT, AU, AZ,	BA, BB, BG, BR, BY,	BZ, CA, CH, CN,
CO, CR, CU	, CZ, DE, DK, DM,	DZ, EC, EE, ES, FI,	GB, GD, GE, GH,
GM, HR, HU	, ID, IL, IN, IS,	JP, KE, KG, KP, KR,	KZ, LC, LK, LR,
LS, LT, LU	, LV, MA, MD, MG,	MK, MN, MW, MX, MZ,	NO, NZ, OM, PH,
PL, PT, RO	, RU, SD, SE, SG,	ST, SK, SL, TJ, TM,	TN, TR, TT, TZ,
UA, UG, US	, UZ, VN, YU, ZA,	ZM, ZW	
RW: GH, GM, KE	, LS, MW, MZ, SD,	SL, SZ, TZ, UG, ZM,	ZW, AM, AZ, BY,
KG, KZ, MD	, RU, TJ, TM, AT,	BE, BG, CH, CY, CZ,	DE, DK, EE, ES,

FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG EP 1419157 A2 20040519 EP 2002-750769 20020801 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK BR 2002011597 20040713 BR 2002-11597 20020801 PRIORITY APPLN. INFO.: CZ 2001-2818 A 20010802 WO 2002-CZ45 W 20020801 OTHER SOURCE(S): MARPAT 138:385444

R6 N N

AB Title compds. [I; R2 = H, halo, OH, alkoxy, amino, hydrazo, SH, CO2H, cyano, NO2, amido, sulfo, sulfamido, acylamino, acyloxy, cycloalkyl, etc.; R6 = (substituted) alkyl, cycloalkyl, aryl, heterocyclyl, heteroaryl, aralkyl, cycloalkylalkylalkyl, amido, sulfo, etc.], were prepared Thus, 6-chloropurine, 3-chlorobenzylamine, and Et3N were heated in BuOH at 90° for 4 h to give 95% 6-(3-chlorobenzylamino)purine. This showed IC50 = 148.6 μM against G-361 cancer cells.

IC ICM C07D473-00

ICS A61K007-00; A61K031-52; A01N043-90; A61P035-00

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) Section cross-reference(s): 1, 5, 9, 62

IT Enzymes, uses

RL: DEV (Device component use); USES (Uses)

(immobilized; preparation of substituted adenines as drugs, cosmetics, and agrochem. growth regulators)

IT 6296-91-9P, 6-(4-Methoxyanilino)purine 6970-39-4P, 6-(3-Methoxyanilino)purine 73663-97-5P, 6-(2-Methoxyanilino)purine 525608-81-5P 525608-82-6P, 6-(3,4-Dichloroanilino)purine 525608-83-7P, 6-(2-Difluoromethoxyanilino)purine 525608-84-8P, 6-[2-Fluoro-4-(trifluoromethyl)anilino]purine 525608-85-9P, 6-(4-Iodo-2-methylanilino)purine 525608-86-0P, 6-(2-Methoxy-5-methylanilino)purine 525608-87-1P, 6-(2-Methoxy-6-methylanilino)purine 525608-88-2P, 6-(4-Methoxy-2-methylanilino)purine 525608-90-6P, 6-[4-Methoxy-3-(trifluoromethyl)anilino]purine

RL: AGR (Agricultural use); BSU (Biological study, unclassified); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

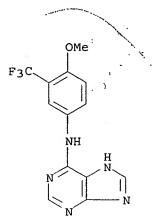
(preparation of substituted adenines as drugs, cosmetics, and agrochem. growth regulators)

525608-90-6P, 6-[4-Methoxy-3-(trifluoromethyl)anilino]purine
RL: AGR (Agricultural use); BSU (Biological study, unclassified); PAC
(Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted adenines as drugs, cosmetics, and agrochem.

growth regulators)

RN 525608-90-6 HCAPLUS

CN 1H-Purin-6-amine, N-[4-methoxy-3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



L43 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:314907 HCAPLUS

DOCUMENT NUMBER: 139:334625

TITLE: Developing a strategy for activity-based detection of

enzymes in a protein microarray

AUTHOR(S): Chen, Grace Y. J.; Uttamchandani, Mahesh; Zhu, Qing;

Wang, Gang; Yao, Shao Q.

CORPORATE SOURCE: Department of Chemistry, National University of

Singapore, Singapore, 117543, Singapore

SOURCE: ChemBioChem (2003), 4(4), 336-339

CODEN: CBCHFX; ISSN: 1439-4227

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal LANGUAGE: English

AB The microarray strategy that allows high throughput, activity-based detection of enzymes immobilized on a glass slide, and its potential application for rapid screenings of enzyme inhibitors are described. Three probes (PT-Cy3, VS-Cy3, FP-Cy3) were designed as broad-based probes for the simultaneous identification of class-specific unknown enzymes in a protein microarray. Three major classes of enzymes (phosphatases, cysteine proteases, and serine hydrolases), were chosen as the targets of the study. In addition, a highly specific probe (caspase-1 probe) was also tested and showed high selectivity towards caspase-1 over other noncaspase cysteine proteases. The microarray-based strategy is a protein-array based strategy that allows the detection of proteins not merely by their binding, but rather by their enzymic activities. The strategy may be used as a viable means for rapid assessment of a candidate drug against a large number of its potential target enzymes.

CC 7-1 (Enzymes)

Section cross-reference(s): 6, 9

IT Enzymes, biological studies

Proteins

RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)

(strategy for activity-based detection of enzymes in a protein microarray)

IT 615557-60-3 615557-61-4 615557-62-5 615557-63-6

RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);
ANST (Analytical study); BIOL (Biological study); USES (Uses)
 (strategy for activity-based detection of enzymes in a protein
 microarray)

IT 615557-60-3

RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);
ANST (Analytical study); BIOL (Biological study); USES (Uses)
 (strategy for activity-based detection of enzymes in a protein
 microarray)

RN 615557-60-3 HCAPLUS

CN 3H-Indolium, 2-[3-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1-propenyl]-1-[17-fluoro-5,16-dioxo-17-[4-(phosphonooxy)phenyl]-9,12-dioxa-6,15-diazaheptadec-1-yl]-3,3-dimethyl- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

REFERENCE COUNT:

17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2002:326190 HCAPLUS

DOCUMENT NUMBER:

137:232199

TITLE:

QSAR for dihydrofolate reductase inhibitors with

molecular graph structural descriptors

AUTHOR (S):

Ivanciuc, Ovidiu; Ivanciuc, Teodora; Cabrol-Bass,

Daniel

CORPORATE SOURCE:

Department of Marine Sciences, Texas A & M University

at Galveston, Galveston, TX, 77551, USA

SOURCE:

THEOCHEM (2002), 582, 39-51

CODEN: THEODJ; ISSN: 0166-1280

PUBLISHER:

Elsevier Science B.V.

DOCUMENT TYPE:

Journal

LANGUAGE:

English

GΙ

AB Mol. graph descriptors are used, together with a large diversity of geometric, electrostatic, and quantum indexes, to model phys., chemical, or biol. properties with quant. structure-property relationships and quant. structure-activity relationships of compds. I (X = H, 4-NO2, 3-F, 4-NH2, 4-F, 3-OH, etc). The interest of developing new graph descriptors for organic compds. was stimulated in recent years by their use in virtual screening of combinatorial libraries, database mining, similarity and diversity assessment. Recently, we have extended topol. indexes by defining a series of mol. graph operators, providing an effective systematization and generalization of these structural descriptors. A graph operator uses a math. equation to compute a family of related mol. graph descriptors with different mol. matrixes and various sets of parameters for atoms and bonds. In this paper we use structural descriptors computed with mol. graph operators to develop quant. structure-activity relationships (QSAR) models for the dihydrofolate reductase inhibition with diaminopyrimidines. The mol. descriptors are derived from five mol. matrixes, namely adjacency A, distance D, reciprocal distance RD, distance-path Dp, and reciprocal distance-path RDp. The QSAR models are obtained by selecting descriptors with a genetic algorithm, and the best models are validated with the leave-one-out cross-validation method. The QSAR models with the highest prediction power are comparable with those obtained with substituent consts. and neural networks, but they use a much lower number of parameters.

CC 22-2 '(Physical Organic Chemistry)
 Section cross-reference(s): 1, 7

IT Enzymes, properties

RL: PRP (Properties)

(inhibitors; QSAR for dihydrofolate reductase inhibitors with mol. graph structural descriptors)

```
IT
                           5355-16-8 7319-45-1
     738-70-5
                836-06-6
                                                    13932-40-6
                                                                  18588-43-7
     20285-70-5
                  20344-69-8
                                30077-60-2
                                             30077-67-9
                                                           36821-85-9
     46726-70-9
                  49561-94-6
                                49873-11-2
                                             50823-94-4 50823-96-6
     53808-87-0
                  56066-63-8
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                  93317-64-7
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107698-03-3 107698-04-4

RL: PRP (Properties)

(QSAR for dihydrofolate reductase inhibitors with mol. graph structural descriptors)

IT 50823-96-6

RL: PRP (Properties)

(QSAR for dihydrofolate reductase inhibitors with mol. graph structural descriptors)

RN 50823-96-6 HCAPLUS

CN 2,4-Pyrimidinediamine, 5-[[4-methoxy-3-(trifluoromethyl)phenyl]methyl](9CI) (CA INDEX NAME)

REFERENCE COUNT:

55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:645635 HCAPLUS

DOCUMENT NUMBER:

135:225942

TITLE:

Methods and compositions for synthesis of

oligosaccharides using mutant glycosidase enzymes

INVENTOR(S):

Withers, Stephen G.; MacKenzie, Lloyd; Wang, Qingping

PATENT ASSIGNEE(S):

The University of British Columbia, Can. U.S., 17 pp., Cont.-in-part of U.S. 5,716,812.

SOURCE:

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PAT	CENT I	NO.			KINI	)	DATE		j	APP:	LICAT	ION I	NO.		Di	ATE	
US	6284	 494			B1	-	2001	0904	1	us Us	1998-9	9127	2		19	9980	929
US	5716	812			Α		19980	0210			1995-					9951	212
WO	9721	822			A2		1997	0619	1	WO	1996-0	CA84	l		19	9961:	212
WO	9721	822			A3		1997	0828									
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		DK,	EE,	ES,	FI,	GB,	GE,	HU,	IL,	IS	, JP,	ΚE,	KG,	KΡ,	KR,	ΚZ,	LC,
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PRIORITY	( APP	LN.	INFO.	. :							1995-9		_		A2 19	99512	212
										_	1996-0		_			99612	
											1995-2					99512	
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OTHER SOURCE(S): CASREACT 135:225942

AB Mutant glycosidase enzymes are formed in which the normal nucleophilic amino acid within the active site has been changed to a non-nucleophilic amino acid. These enzymes cannot hydrolyze disaccharide products, but can still form them. Using this enzyme, oligosaccharides are synthesized by preparing a mixture of an  $\alpha$ -glycosyl fluoride and a glycoside acceptor mol.; enzymically coupling the  $\alpha$ -glycosyl fluoride to the glycoside acceptor mol. to form a glycosyl glycoside product using the mutant glycosidase enzyme; and recovering the glycosyl glycoside product. Particular enzymes include a mutant form of Agrobacterium  $\beta$ -glucosidase in which the normal glutamic acid residue at position 358 is replaced with an alanine residue.

ICM C12P019-44 IC

> ICS C12P019-12; C12N009-24; C12N009-26; C12N009-42

NCL 435074000

16-2 (Fermentation and Bioindustrial Chemistry)

Section cross-reference(s): 7

487-60-5 490-51-7 1226-39-7 1464-44-4 2001-96-9 TΤ 2021-84-3,  $\alpha$ -D-Galactopyranosyl fluoride 2106-10-7,  $\alpha$ -D-Glucopyranosyl fluoride 2492-87-7,  $\beta$ -D-Glucopyranoside, 4-nitrophenyl  $\beta$ -D-Glucopyranoside, 2-nitrophenyl 2936-70-1,  $\beta$ -D-2816-24-2, Glucopyranoside, phenyl 1-thio- 3150-24-1, β-D-Galactopyranoside, 4-nitrophenyl 3482-57-3 4304-12-5 6032-32-2, β-D-Glucopyranoside, 4-methoxyphenyl 7791-61-9 10019-60-0 10238-27-4 17400-77-0 18997-57-4 18997-57-4 20838-44-2 25775-97-7, β-D-Glucopyranoside, 2,4-dinitrophenyl 35599-02-1 62499-26-7 75705-24-7, Benzoic acid, 4-(β-D-glucopyranosyloxy)-, 70569-27-6 methyl ester 111495-86-4 **131497-36-4** 168291-98-3 188194-13-0 192657-49-1 192657-50-4 358395-47-8 RL: RCT (Reactant); RACT (Reactant or reagent) (synthesis of oligosaccharides using mutant glycosidase enzymes)

IT 131497-36-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(synthesis of oligosaccharides using mutant glycosidase enzymes) RN131497-36-4 HCAPLUS

CN β-D-Glucopyranoside, 4-(difluoromethyl)phenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT:

19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:152525 HCAPLUS

DOCUMENT NUMBER:

134:212695

TITLE:

Drug conjugates comprising vector-linker-pharmacophore

and methods of designing the same

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Hag PCT/US04/18524
                       Brenner, Sydney; Goelet, Philip; Stackhouse, Joseph;
INVENTOR(S):
                       Millward, Steven W.
PATENT ASSIGNEE(S):
                       USA
                       PCT Int. Appl., 196 pp.
SOURCE:
                       CODEN: PIXXD2
DOCUMENT TYPE:
                       Patent
LANGUAGE:
                       English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                      KIND DATE
    PATENT NO.
                                       APPLICATION NO.
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WO 2000-US23593
         WO 2001013958
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                                                           20020131
         WO 2001013958
                                                  A3
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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PRIORITY APPLN. INFO.:
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P 20000223
P 20000223
W 20000828
                                                                                        US 1999-150894P
                                                                                        US 2000-184411P
                                                                                        US 2000-184412P
                                                                                        WO 2000-US23593
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AB The invention relates to drug conjugates and methods of their design. One embodiment of the invention is directed to a method of designing vector-linker-pharmacophore (VLP) conjugates that is generally applicable to a wide variety of vectors, linkers, and pharmacophores. The invention also encompasses a method of improving the delivery of a pharmacophore to a patient, as well as a method of improving the therapeutic efficacy of a pharmacophore and a method of decreasing the toxicity of a pharmacophore. A method of increasing the concentration of a pharmacophore in a cell is further

encompassed by the invention. Preparation of many VLP conjugates including conjugates of kirromycin-3-nitro-4-hydrazidophenylthioethanol-tetracycline derivative, are disclosed.

- IC ICM A61K047-48
- CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 28

- IT Enzymes, biological studies
  - Proteins, general, biological studies
  - RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitors; drug conjugates comprising vector-linker-pharmacophore and methods of designing same)
- IT 104-10-9P 107-68-6P, N-Methyltaurine 501-53-1P, Carbobenzyloxy chloride 1007-54-1P 3163-15-3P, 2-Aminoresorcinol 5063-96-7P 6066-83-7P, 5-Aminovaleronitrile 15896-61-4P 17385-61-4P 19285-38-2P 21253-57-6P 21253-58-7P 21822-24-2P 52648-14-3P, 1-N-Desmethylgoldinamine 73164-56-4P 74219-55-9P 86386-77-8P 116435-82-6P 120793-45-5P 143429-10-1P 155834-18-7P 161321-16-0P

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     328899-82-7P, Goldinonic acid
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (drug conjugates comprising vector-linker-pharmacophore and methods of
        designing same)
IT
     188434-25-5P 188434-26-6P 328401-17-8P
     328401-18-9P 328401-19-0P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (drug conjugates comprising vector-linker-pharmacophore and methods of
        designing same)
RN
     188434-25-5 HCAPLUS
     β-D-Galactopyranoside, 2-(difluoromethyl)-4-nitrophenyl,
CN
     2,3,4,6-tetraacetate (9CI) (CA INDEX NAME)
```

Absolute stereochemistry.

RN 188434-26-6 HCAPLUS CN  $\beta$ -D-Galactopyranoside, 4-amino-2-(difluoromethyl)phenyl, 2,3,4,6-tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 328401-17-8 HCAPLUS

CN  $\beta$ -D-Galactopyranoside, 4-amino-2-(difluoromethyl)phenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 328401-18-9 HCAPLUS

CN Hexanamide, N-[6-[[3-(difluoromethyl)-4-(β-D-galactopyranosyloxy)phenyl]amino]-6-oxohexyl]-6-[(iodoacetyl)amino]-(9CI)
(CA INDEX NAME)

Absolute stereochemistry.

RN 328401-19-0 HCAPLUS

CN Hexanamide, N-[6-[[3-(difluoromethyl)-4-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)oxy]phenyl]amino]-6-oxohexyl]-6-[(iodoacetyl)amino]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

L43 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:693502 HCAPLUS

DOCUMENT NUMBER: 132:35824

TITLE: Design and synthesis of an activity probe for protein

tyrosine phosphatases

AUTHOR (S): Lo, Lee-Chiang; Wang, Hsin-Yi; Wang, Zi-Jien

CORPORATE SOURCE: Department of Chemistry, National Taiwan University,

Taipei, 106, Taiwan

SOURCE: Journal of the Chinese Chemical Society (Taipei)

(1999), 46(5), 715-718 CODEN: JCCTAC; ISSN: 0009-4536

PUBLISHER: Chinese Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

GI

Ι

Protein tyrosine phosphatases (PTPases) are an important class of enzymes AB involved in the regulation of many cellular events. The design and synthesis of an activity probe I targeting these PTPases is described. This mechanism-based activity probe adopts a cassette-like design; a phosphate group serves as the recognition head and a fluorescent diethylaminocoumarin derivative acts as the reporter group. Compound 4-HOC6H4CHOHCONHCH2CH2OCH2CH2OCH2CH2NHCO2CMe3 was phosphorylated with diallyl phosphorochloridate and then fluorinated with DAST to give versatile intermediate. The Boc protective group of compound intermediate was removed by TFA to make available the amino group where a diethylaminocoumarin chromophore was later attached. Final deprotection of the allyl group from the phosphate head gives complete activity probe I. It will be used in the labeling study of PTPases from various sources.

CC 29-7 (Organometallic and Organometalloidal Compounds) Section cross-reference(s): 1

IT Enzymes, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL

(Biological study); PROC (Process)

(protein tyrosine phosphatases; design and synthesis of activity probe for protein tyrosine phosphatases)

IT 252259-74-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(design and synthesis of activity probe for protein tyrosine phosphatases)

IT 252259-76-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and amine deprotection of)

IT 252259-79-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and deallylation of)

IT 252259-78-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction with diethylaminocoumarin chromophore)

IT 252259-74-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(design and synthesis of activity probe for protein tyrosine phosphatases)

RN 252259-74-8 HCAPLUS

CN 2H-1-Benzopyran-3-carboxamide, 7-(diethylamino)-N-[2-[2-[2-[[fluoro[4-(phosphonooxy)phenyl]acetyl]amino]ethoxy]ethoxy]ethyl]-2-oxo- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

IT 252259-76-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and amine deprotection of)

RN 252259-76-0 HCAPLUS

CN 5,8-Dioxa-2,11-diazatridecanoic acid, 13-[4-[[bis(2-

propenyloxy)phosphinyl]oxy]phenyl]-13-fluoro-12-oxo-, 1,1-dimethylethyl
ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

IT 252259-79-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and deallylation of)

RN 252259-79-3 HCAPLUS

CN Phosphoric acid, 4-[13-[7-(diethylamino)-2-oxo-2H-1-benzopyran-3-yl]-1-fluoro-2,13-dioxo-6,9-dioxa-3,12-diazatridec-1-yl]phenyl di-2-propenyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

IT 252259-78-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and reaction with diethylaminocoumarin chromophore)

RN 252259-78-2 HCAPLUS

CN Phosphoric acid, 4-[2-[[2-[2-(2-aminoethoxy)ethoxy]ethyl]amino]-1-fluoro-2-oxoethyl]phenyl di-2-propenyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 252259-77-1

CMF C20 H30 F N2 O7 P

PAGE 1-A

PAGE 1-B

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CM 2

CRN 76-05-1 CMF C2 H F3 O2

F-C-CO<sub>2</sub>H

REFERENCE COUNT:

16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1998:793124 HCAPLUS

DOCUMENT NUMBER:

130:37298

TITLE:

Conjugates and specific immunoassays for methadone

metabolite 2-ethylidine-1,5-dimethyl-3,3-

diphenylpyrrolidine

INVENTOR(S):

Sigler, Gerald Francis; Coty, William; Powell, Michael

Joseph

. PATENT ASSIGNEE(S):

Boehringer Mannheim Corporation, USA

SOURCE:

PCT Int. Appl., 55 pp.

CODEN: PIXXD2

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DOCUMENT TYPE:
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LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
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    WO 9854133
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PRIORITY APPLN. INFO.:
                                            US 1997-47773P
                                                                Ρ
                                                                   19970527
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OTHER SOURCE(S): MARPAT 130:37298

- AB Novel chemical analogs of the methadone metabolite 2-ethylidene-1,5-dimethyl-3,3-diphenylpyrrolidine (EDDP) are disclosed. The derivs. can be used for formation of EDDP-protein conjugates. The conjugates can be used in turn to raise antibodies reactive with EDDP and having a low cross-reactivity with methadone. The antibodies and EDDP-enzyme polypeptide conjugates provide the basis for specific immunoassays used in monitoring compliance with methadone treatment (for withdrawal from heroin addiction).
- IC ICM C07D207-20
  - ICS G01N033-94
- CC 15-2 (Immunochemistry)

Section cross-reference(s): 1, 4

IT Enzymes, biological studies

Proteins, specific or class

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (conjugates, EDDP analogs; preparation of hapten conjugates of EDDP analogs for raising antibody for immunoassay of methadon metabolites and for monitoring methadone treatment for withdrawal from heroin addiction)

IT 720-44-5P 4578-79-4P 6731-11-9P, p-Methoxybenzhydryl chloride

104357-17-7P 216974-53-7P 216974-56-0P 216974-59-3P 216974-64-0P

216974-66-2P 216974-68-4P 216974-69-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of hapten conjugates of EDDP analogs for raising antibody for immunoassay of methadon metabolites and for monitoring methadone treatment for withdrawal from heroin addiction)

IT 6731-11-9P, p-Methoxybenzhydryl chloride

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of hapten conjugates of EDDP analogs for raising antibody for immunoassay of methadon metabolites and for monitoring methadone treatment for withdrawal from heroin addiction)

RN 6731-11-9 HCAPLUS

CN Benzene, 1-(chlorophenylmethyl)-4-methoxy- (9CI) (CA INDEX NAME)

CH-Ph

REFERENCE COUNT:

10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1998:551387 HCAPLUS

DOCUMENT NUMBER:

129:241683

TITLE:

Inhibitors directed towards the binuclear metal center of phosphotriesterase. [Erratum to document cited in

CA127:274562]

AUTHOR(S):

Hong, Suk Bong; Raushel, Frank M.

CORPORATE SOURCE:

Dep. Chem., Texas A & M Univ., College Station, TX,

77843, USA

SOURCE: ·

Journal of Enzyme Inhibition (1998), 13(1), No pp.

Given

CODEN: ENINEG; ISSN: 8755-5093

PUBLISHER:

Harwood Academic Publishers

DOCUMENT TYPE:

Journal

LANGUAGE:

English

Structures VI and VII in Table I have been corrected

CC 7-3 (Enzymes)

IT Enzymes, biological studies

> RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(metallo-; inhibitors directed towards the binuclear metal center of phosphotriesterase (Erratum))

78-40-0 298-06-6 598-02-7 683-08-9 884-90-2 TΤ 1067-71-6

1478-53-1 1663-55-4 1754-49-0 1776-87-0 2609-49-6 3084-40-0

6629-49-8 3095-95-2 3453-00-7 16497-99-7 49640-96-2

67964-17-4 70269-57-7 70660-05-8 63542-12-1 174349-94-1

177284-54-7 **196514-50-8** 196514-51-9 213077-24-8

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(inhibitors directed towards the binuclear metal center of phosphotriesterase (Erratum))

IT 196514-50-8

> RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(inhibitors directed towards the binuclear metal center of phosphotriesterase (Erratum))

RN196514-50-8 HCAPLUS

Phosphonic acid, [fluoro(4-methoxyphenyl)methyl]-, diethyl ester (9CI) CN (CA INDEX NAME)

L43 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1997:597993 HCAPLUS

DOCUMENT NUMBER:

127:274562

TITLE:

Inhibitors directed towards the binuclear metal center

of phosphotriesterase

AUTHOR (S):

Hong, Suk Bong; Raushel, Frank M.

CORPORATE SOURCE:

Dep. Chem., Texas A & M Univ., College Station, TX,

77843, USA

SOURCE:

Journal of Enzyme Inhibition (1997), 12(3), 191-203

CODEN: ENINEG; ISSN: 8755-5093

PUBLISHER: Harwood DOCUMENT TYPE: Journal LANGUAGE: English

The potential roles in binding and catalysis for the binuclear metal center found within bacterial phosphotriesterase were evaluated by characterization of the inhibitory properties of 26 substrate and product mimetics. Phosphonates bearing monofluoro, difluoro, or hydroxyl substituents at the methylene position were noncompetitive inhibitors with Ki values ranging from 0.6-9 mM vs. the substrate paraoxon. Phosphoramidates did not inhibit the enzyme. Di-Et phosphate and di-Et dithiophosphate inhibited the Cd-substituted enzyme with Ki values of 10 and 130  $\mu$ M, resp. The most effective inhibitor for either the Cd or Zn substituted enzyme was found di-Et thiomethyl-phosphonate. The competitive inhibition consts. for this compound were 60 nM and 2.8  $\mu$ M for the Cd- and Zn-substituted enzyme, resp. The tight binding is attributed to chelation of both metal ions simultaneously.

CC 7-3 (Enzymes)

IT Enzymes, biological studies

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(metallo-; inhibitors directed towards the binuclear metal center of phosphotriesterase)

TΤ 298-06-6 598-02-7 683-08-9 884-90-2 1067-71-6 1754-49-0 1776-87-0 1478-53-1 2609-49-6 3084-40-0 3095-95-2 3453-00-7 6629-49-8 16497-99-7 49640-96-2 56183-69-8 63542-12-1 67964-17-4 70269-57-7 70660-05-8 174349-94-1 177284-54-7 196514-50-8 196514-51-9

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(inhibitors directed towards the binuclear metal center of phosphotriesterase)  $% \left( \frac{1}{2}\right) =\left( \frac{1}{2}\right) \left( \frac{1}{2}\right)$ 

IT 196514-50-8

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(inhibitors directed towards the binuclear metal center of phosphotriesterase)

RN 196514-50-8 HCAPLUS

Phosphonic acid, [fluoro(4-methoxyphenyl)methyl]-, diethyl ester (9CI) CN (CA INDEX NAME)

L43 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1997:516090 HCAPLUS

DOCUMENT NUMBER:

127:132736

TITLE:

Methods and compositions for synthesis of

oligosaccharides using mutant glycosidase enzymes INVENTOR(S):

Withers, Stephen G.; Mackenzie, Lloyd; Wang, Quingping

PATENT ASSIGNEE(S):

The University of British Columbia, Can.; Withers,

Stephen G.; Mackenzie, Lloyd; Wang, Quingping

SOURCE:

PCT Int. Appl., 45 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	TENT	NO.			KIN	D	DATE APPL										
	9721															9961	212
WO	9721	822			A3		1997	0828									
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							GE,										
		LK,	LR,	LS,	LT,	.LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL,	PT,
		RO,	RU,	SD,	SE,	SG,	SI,	SK,	TJ,	TM,	TR,	TT,	UA,	UG,	US,	UZ,	VN,
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	RW:																
		ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	ML,
				•	TD,												
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	5716				Α		1998	0210	1	US 1	995~!	5711	75		1:	9951	212
	2238																
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EP	8700	37			A2		1998	1014	1	EP 1	996-	9422	11		1	9961	212
EP	8700																
	R :		BE, FI			DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
JP	2000	5016	07		T2		2000	0215	,	JP 1	997-!	5215	72		1:	9961	212
EP	1211																
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FI,	RO,	AL									
AT	2207	20			E		2002	0815	i	AT 1	996-	9422	11		15	9961	212
US	6284	494			B1		2001	0904	τ	JS 1	998-	91272	2		19	9980	929
US	2003	1007	49		A1		2003	0529	Ţ	JS 2	001-	8377	11		20	0010	417
PRIORIT	Y APP	LN.	INFO	.:						CA 1:	995-2	21650	041	7	A 19	9951	212
													75	1	A2 19	9951	212
									]	EP 1:	996-	9422	11	7	A3 19	9961	212

WO 1996-CA841 W 19961212 US 1998-91272 A1 19980929

Mutant glycosidase enzymes are formed in which the normal nucleophilic AB amino acid within the active site has been changed to a non-nucleophilic amino acid. These enzymes cannot hydrolyze disaccharide products, but which can still form them. Using this enzyme, oligosaccharides are synthesized by preparing a mixture of an  $\alpha$ -glycosyl fluoride and a glycoside acceptor mol., enzymically coupling the  $\alpha$ -glycosyl fluoride to the glycoside acceptor mol. to form a glycosyl glycoside product using the mutant glycosidase enzyme, and recovering the glycosyl glycoside product. Particular enzymes include a mutant form of Agrobacterium  $\beta$ -glucosidase in which the normal glutamic acid residue at position 358 is replaced with an alanine residue by using oligonucleotide-directed mutagenesis. Agrobacterium E358A  $\beta$ -glucosidase catalyzed the reaction of  $\alpha$ -galactosyl fluoride with p-nitrophenyl- $\beta$ -D-glucoside to form p-nitrophenyl-4-Oglucopyranosyl- $\beta$ -D-galactopyranoside in 84% yield. The nature of the donor moiety in some aryl glycosides shifts the reaction from  $\beta\text{--}1,4$ linkages to the production of  $\beta$ -1,3 linkages, but still produces a good yield of product.

IC ICM C12N015-56

ICS C12P019-04; C12N009-24; C12N009-26; C12N015-62

CC 7-3 (Enzymes)

Section cross-reference(s): 9

IT 487-60-5 490-51-7 528-50**-**7 1226-39-7 1464-44-4, Phenyl β-D-glucoside 2001-96-9 2021-84-3,  $\alpha$ -D-Galactosyl fluoride 2106-10-7,  $\alpha$ -D-Glucosyl fluoride 2492-87-7, p-Nitrophenyl 2816-24-2, 2-Nitrophenyl  $\beta$ -D-glucoside β-D-glucoside 2936-70-1 3150-24-1 3482-57-3 4304-12-5 7791-61-9 6032-32-2 10238-27-4 18997-57-4 20838-44-2 25775-97-7, β-D-Glucopyranoside, 2,4-dinitrophenyl 35599-02-1 68636-48-6 70569-27-6 75705-24-7 111495-86-4 **131497-36-4** 168291-98-3 188194-13-0 192657-49-1 192657-50-4 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(methods and compns. for synthesis of oligosaccharides using mutant qlycosidase enzymes)

IT 131497-36-4

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(methods and compns. for synthesis of oligosaccharides using mutant glycosidase enzymes)

RN 131497-36-4 HCAPLUS

CN β-D-Glucopyranoside, 4-(difluoromethyl)phenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L43 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

CORPORATE SOURCE:

1996:573177 HCAPLUS

DOCUMENT NUMBER:

125:241578

TITLE:

A versatile mechanism based reaction probe for the

direct selection of biocatalysts

AUTHOR(S):

Lo, Lee-Chiang; Lo, Chih-Hung L.; Janda, Kim D. Deps. Chem. Molecular Biol., Scripps Res. Inst., La

Jolla, CA, 92037, USA

SOURCE:

Bioorganic & Medicinal Chemistry Letters (1996),

6(17), 2117-2120

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER:
DOCUMENT TYPE:
LANGUAGE:

Elsevier Journal English

AB A mechanism based reaction probe was synthesized and shown to modify a bacterial phosphotriesterase; this strategy for generating a probe is general and should allow the isolation of a host of unique catalysts.

CC 7-3 (Enzymes)

Section cross-reference(s): 9

IT Enzymes

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(derivs.; versatile mechanism based reaction probe for direct selection
of biocatalysts)

IT 182227-47-0P

RL: BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(versatile mechanism based reaction probe for direct selection of biocatalysts)

IT 182227-47-0P

RL: BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(versatile mechanism based reaction probe for direct selection of biocatalysts)

RN 182227-47-0 HCAPLUS

CN 5,8-Dioxa-2,11-diazatridecanoic acid, 13-[4-[(diethoxyphosphinyl)oxy]pheny l]-13-fluoro-12-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

L43 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

```
1995:228471 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         122:122490
TITLE:
                         Prodrugs of anthracyclines for chemotherapy via
                         enzyme-monoclonal antibody conjugates
                         Gesson, J.-P.; Jacquesy, J.-C.; Mondon, M.; Petit, P.;
AUTHOR (S):
                         Renoux, B.; Andrianomenjanahary, S.; Van, H.
                         Dufat-Trinh; Koch, M.; Michel, S.; et al.
CORPORATE SOURCE:
                         Lab. Chim. XII, Poitiers, 86022, Fr.
SOURCE:
                         Anti-Cancer Drug Design (1994), 9(5), 409-23
                         CODEN: ACDDEA; ISSN: 0266-9536
PUBLISHER:
                        Oxford University Press
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         English
    New prodrugs of daunorubicin, 1c, 1e and 2c, including a galactopyranosyl
     residue linked to the N-3' of the daunosaminyl moiety through substituted
     o- or p-benzyloxycarbonyl groups were synthesized. Their low cytotoxicity
     and high stability in plasma fulfil the conditions for antibody-directed
     enzyme prodrug therapy. Enzymic hydrolysis using \alpha-D-galactosidase
    gives rise to daunorubicin by subsequent self-elimination of the spacers.
    However, elimination clearly depends on the aromatic substitution pattern, as
     demonstrated especially by comparison with non-substituted analogs.
CC
     1-3 (Pharmacology)
     Section cross-reference(s): 26, 63
IT
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); BIOL (Biological study)
        (prodrugs of anthracyclines for chemotherapy via enzyme-monoclonal
        antibody conjugates)
IT
     52730-14-0P
                  148579-44-6P
                                148579-49-1P 148579-54-8P
                                                                148579-69-5P
     148579-71-9P 148579-75-3P 148579-77-5P 148579-78-6P
     148579-79-7P 148579-80-0P 148579-81-1P
                                                148579-87-7P
                                                               148579-88-8P
     148580-03-4P 148580-04-5P 148580-16-9P
                                                 160847-41-6P
                                                                 160847-42-7P
     160847-43-8P 160847-44-9P 160847-45-0P
                                                160847-46-1P
                                                               160847-47-2P
    RL: BAC (Biological activity or effector, except adverse); BPR (Biological
    process); BSU (Biological study, unclassified); PRP (Properties); SPN
     (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC
        (prodrugs of anthracyclines for chemotherapy via enzyme-monoclonal
        antibody conjugates)
IT
     148579-77-5P
     RL: BAC (Biological activity or effector, except adverse); BPR (Biological
     process); BSU (Biological study, unclassified); PRP (Properties); SPN
     (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC
     (Process)
        (prodrugs of anthracyclines for chemotherapy via enzyme-monoclonal
        antibody conjugates)
RN
     148579-77-5 HCAPLUS
CN
     \alpha-D-Galactopyranoside, 2-(dibromomethyl)-4-nitrophenyl,
     2,3,4,6-tetraacetate (9CI)
                                (CA INDEX NAME)
```

Absolute stereochemistry. Rotation (+).

L43 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1992:105588 HCAPLUS

DOCUMENT NUMBER:

116:105588

TITLE:

Chemoenzymic preparation of asymmetrized

tris(hydroxymethyl)methane (THYM\*) and of asymmetrized bis(hydroxymethyl)acetaldehyde (BHYMA\*) as new highly

versatile chiral building blocks

AUTHOR (S):

Guanti, Giuseppe; Banfi, Luca; Narisano, Enrica

CORPORATE SOURCE: Ist. Chim. Org., CNR, Genoa, I-16132, Italy

SOURCE:

Journal of Organic Chemistry (1992), 57(5), 1540-54

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE:

Journal

LANGUAGE:

English

OTHER SOURCE(S):

CASREACT 116:105588

AB A series of asymmetrized tris(hydroxymethyl) methane derivs., e.g., HOCH2CH(CH2OCH2Ph) CH2OSiMe2CMe3, and bis(hydroxymethyl) acetaldehyde derivs., e.g., PhCH2OCH2CH(CH2OSiMe2CMe3) CHO, were prepared in both enantiomeric forms through a chemoenzymic methodol. The key step is the highly enantioselective PPL-catalyzed monohydrolysis of (E)-2-alkenyl-1,3-diacetoxypropanes, e.g., PrCH:CHCH(CH2OAc)2. A careful study of the effect of unsath. adjacent to the prochiral center in a series of 2-substituted 1,3-diacetoxypropanes confirmed the suggested beneficial effect of a  $\pi$  system in that position but also unveiled an unprecedented dramatic effect of the double-bond configuration on enantioselectivity. A new empirical model for the interpretation of these and other results, based both on polarity and steric arguments, is proposed. This study provides a general protocol for the efficient synthesis of asymmetrized 1,3-propanediols bearing saturated or unsatd. carbon chains in the position 2.

CC 23-14 (Aliphatic Compounds)

Section cross-reference(s): 7

IT Enzymes

RL: RCT (Reactant); RACT (Reactant or reagent)

(for asym. hydrolysis of alkenyldiacetoxypropanes)

IT 3587-60-8, Benzyl chloromethyl ether 64610-11-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(alkylation with, of alcs. in synthesis of bis- and

tris (hydroxymethyl) methanes)

IT 64610-11-3

RL: RCT (Reactant); RACT (Reactant or reagent) (alkylation with, of alcs. in synthesis of bis- and

tris(hydroxymethyl)methanes)

RN 64610-11-3 HCAPLUS

CN Benzene, 1-(chloromethoxymethyl)-4-methoxy- (9CI) (CA INDEX NAME)

L43 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1991:38253 HCAPLUS

DOCUMENT NUMBER: 114:38253

TITLE: Ortho- and para-(difluoromethyl)aryl-β-D-

glucosides: a new class of enzyme-activated irreversible inhibitors of  $\beta$ -glucosidases

AUTHOR(S): Halazy, S.; Berges, V.; Ehrhard, A.; Danzin, C.

CORPORATE SOURCE: Merrell Dow Res. Inst., Strasbourg, 67009, Fr.

SOURCE: Bioorganic Chemistry (1990), 18(3), 330-44

CODEN: BOCMBM; ISSN: 0045-2068

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 114:38253

AB New o- and p-(difluoromethyl)aryl-β-D-glucosides were stereoselectively prepared in 3 steps from 1-bromo-2,3,4,6-tetraacetyl glucose, using an appropriate o- or p-hydroxybenzaldehyde derivative. The F atoms were introduced by reacting thus formed o- or p-O-glucosyl benzaldehyde derivs. with diethylaminosulfur trifluoride. The title compds. were potent time-dependent irreversible inhibitors of almond β-glucosidase. The inactivation was explained by the enzyme -catalyzed hydrolysis of the glucosidic linkage, releasing an o- or p-(difluoromethyl)phenol. The o- and p-(difluoromethyl)phenols were assumed to rapidly form fluorinated quinone methides which alkylated a

nucleophilic residue of the enzyme active site. CC = 7-3 (Enzymes)

Section cross-reference(s): 33

IT 131497-36-4P 131497-37-5P 131497-38-6P 131497-39-7P

131497-40-0P 131497-41-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and kinetics of glucosidase inhibition by)

IT 131497-36-4P 131497-40-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and kinetics of glucosidase inhibition by)

RN 131497-36-4 HCAPLUS

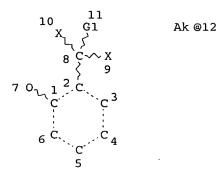
CN β-D-Glucopyranoside, 4-(difluoromethyl)phenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 131497-40-0 HCAPLUS
CN β-D-Glucopyranoside, 2-(difluoromethyl)-4-methoxyphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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=> d que
L7 STR
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VAR G1=H/X/12

NODE ATTRIBUTES:

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CONNECT IS E3 RC AT 4

CONNECT IS E2 RC AT 5

CONNECT IS E2 RC AT 6

CONNECT IS E2 RC AT 7

CONNECT IS E1 RC AT 12

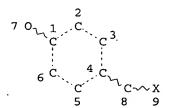
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DEFAULT ECLEVEL IS LIMITED

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RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L9 3146 SEA FILE=REGISTRY SSS FUL L7 L15 STR



NODE ATTRIBUTES:

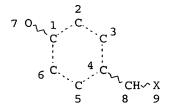
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DEFAULT ECLEVEL IS LIMITED

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RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE

L17 4953 SEA FILE=REGISTRY SSS FUL L15 L18 STR



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CONNECT IS E2 RC AT 5
CONNECT IS E2 RC AT 6
CONNECT IS E2 RC AT 7
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

#### GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 9

# STEREO ATTRIBUTES: NONE

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L39	27271	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L38 OR HYDROL? (3A) ?ENZYME?
L40		-	FILE=HCAPLUS			
L41	169861	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	ENZYMES+PFT/CT
L42	12	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L20 AND L41
L43	15	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L40 OR L42
L45	10	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L20(L)?ENZYM?
L46	6	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L45 NOT L43

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L46 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:784629 HCAPLUS

DOCUMENT NUMBER: 139:292147

TITLE: Preparation of indole derivatives as phospholipase

enzyme inhibitors

INVENTOR(S): Seehra, Jasbir S.; Kaila, Neelu; McKew, John C.;

Bemis, Jean E.; Xiang, Yibin; Chen, Lihren

PATENT ASSIGNEE(S): Genetics Institute LLC, USA

SOURCE: U.S., 81 pp., Cont.-in-part of U.S. Ser. No. 30,102.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 6630496	B1	20031007	US 2000-645042	20000824
BR 9909242	Α	20001114	BR 1999-9242	19990217
PRIORITY APPLN. INFO.:			US 1997-918400	B2 19970826

US 1998-30102 B2 19980225 WO 1999-IS3388 W 19990217

OTHER SOURCE(S):

MARPAT 139:292147

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The indole derivs. (I), (II), and (III) [where A = CH2 or CH2CH2; B = (CH2)n, (CH2O)n, (CH2S)n, (OCH2)n, (SCH2)n, (CH=CH)n, (C.tplbond.C)n, CONR6, NR6CO, O, S, or NR6; R1 = H, OH, halo, etc.; R2, R3 = H, CO2H, alkyl, aryl, etc.; R4, R5 = H, OH, CN, CO2H, etc.; n = 0-4] and pharmaceutically acceptable salts thereof, were prepared Thus, 2,4-thiazolidinedione and K2CO3 followed by NaOH were added to 5-(benzyloxy)-1-(4-{[3,5-bis(trifluoromethyl)phenoxy]methyl}benzyl)-1H-indole-2-carboxaldehyde in EtOH to form the 2,4-thiazolidinedion-4-ylidene derivative The ylidene was dissolved in a solution of DMF and NaH, reacted with

an alkyl ester of 4-(bromomethyl)benzoic acid, and deesterified with HF to yield the acid, (E)-(IV). The title compds. are useful as phospholipase enzyme inhibitors, especially cytosolic phospholipase A2 (cPLA2), for treatment of inflammatory conditions and pain, particularly where inhibition of production of prostaglandins, leukotrienes, and PAF are all desired. Eighty-seven compds. of the invention were tested for phospholipase enzyme inhibiting activity in the LysoPC and/or Coumarine assay. IC50 values ranged from 0.081  $\mu$ M to >50  $\mu$ M for the LysoPC assay and from 2.5  $\mu$ M to >64  $\mu$ M for the Coumarine assay. Selected compds. were tested for in vivo activity in the carrageenan-induced rat paw edema test, and showed 4.2% to 34.2% inhibition. Forty-eight compds. of the invention were tested for cPLA2 enzyme activity, and exhibited 25% to 95% inhibition at concns. of 3  $\mu$ M to 100  $\mu$ M. Pharmaceutical composition comprising the compound I was claimed.

IC ICM C07D417-06

ICS A61K031-404; A61K031-427

NCL 514369000; 548181000; 548183000

CC 27-11 (Heterocyclic Compounds (One Hetero Atom))
 Section cross-reference(s): 1, 63

TT 204016-27-3P 204016-28-4P 204016-29-5P 204016-30-8P 204016-31-9P 204016-32-0P 204016-33-1P 204016-34-2P 204016-35-3P 204016-36-4P 204016-37-5P 204016-38-6P 204016-39-7P 204016-40-0P 204016-41-1P 204016-42-2P 204016-43-3P 204016-44-4P 204016-45-5P 204016-46-6P 204016-47-7P 204016-48-8P 204016-49-9P 204016-50-2P 204016-51-3P 204016-52-4P 204016-53-5P 204016-54-6P 204016-55-7P 204016-56-8P 204016-57-9P 204016-58-0P 204016-59-1P 204016-60-4P 204016-61-5P 204016-62-6P 204016-63-7P 204016-64-8P 204016-65-9P 204016-66-0P 204016-67-1P 204016-68-2P 204016-69-3P 204016-70-6P 204016-71-7P 204016-72-8P 204016-73-9P 204016-74-0P 204016-75-1P 204016-76-2P 204016-77-3P 204016-78-4P 204016-79-5P 204016-80-8P 204016-81-9P 204016-82-0P 204016-83-1P 204016-84-2P 204016-85-3P 204016-86-4P 204016-87-5P 204016-88-6P 204016-89-7P 204016-90-0P 204016-91-1P 204016-92-2P 204016-93-3P 204016-94-4P 204016-95-5P 204016-96-6P 204016-97-7P 204016-98-8P 204016-99-9P 204017-02-7P 204017-00-5P 204017-01-6P 204017-03-8P 204017-04-9P 204017-05-0P 204017-06-1P 204017-07-2P 204017-08-3P 204017-09-4P 204017-10-7P 204017-11-8P 204017-12-9P 204017-13-0P 241489-40-7P 241489-41-8P 241489-42-9P 241489-43-0P 241489-44-1P 241489-45-2P 241489-46-3P 241489-47-4P 241489-48-5P 241489-49-6P 241489-50-9P

241489-56-5P 241489-52-1P 241489-53-2P 241489-54-3P 241489-58-7P 241489-60-1P 241489-62-3P 241489-64-5P 241489-66-7P 241489-65-6P 241489-67-8P 241489-69-0P 241489-70-3P 241489-72-5P 241489-73-6P 241489-74-7P 241489-76-9P 241489-77-0P 241489-78-1P 241489-79-2P 241489-80-5P 241489-81-6P 241489-82-7P 241489-83-8P 241489-84-9P 241489-85-0P 241489-86-1P 241489-87-2P 241489-88-3P 241489-89-4P 241489-92-9P 241489-90-7P 241489-91-8P 241489-93-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of indole derivs. as phospholipase **enzyme** inhibitors for treatment of inflammatory conditions)

## IT 204016-36-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of indole derivs. as phospholipase enzyme inhibitors for treatment of inflammatory conditions)

RN 204016-36-4 HCAPLUS

CN Benzoic acid, 5-[[[1-[[4-[[2,4-bis(trifluoromethyl)phenoxy]methyl]phenyl]methyl]-5-(phenylmethoxy)-1H-indol-2-yl]carbonyl]amino]-2-[(6-chloro-3-pyridinyl)oxy]- (9CI) (CA INDEX NAME)

$$Ph-CH_2-O$$
 $R$ 
 $CH_2-O$ 
 $CH_2-O$ 
 $CF_3$ 

REFERENCE COUNT: 70 THERE ARE 70 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:566043 HCAPLUS

DOCUMENT NUMBER: 131:199620

TITLE: Preparation of indole derivatives as phospholipase

enzyme inhibitors

INVENTOR(S): Seehra, Jasbir S.; Xiang, Yibin; Bemis, Jean; McKew,

John; Kaila, Neelu; Chen, Lihren

PATENT ASSIGNEE(S): Genetics Institute, Inc., USA

SOURCE: PCT Int. Appl., 225 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PAT	rent 1	NO.					DATE									ATE		
WO	9943	672			A1		1999	0902	1	WO 1	999-1	US33	88		1:	9990:	217	
	W:	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	DE,	
		DK,	EE,	ES,	FI,	GB,	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IS,	JΡ,	KE,	KG,	
		KP,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,	
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											KG,						•	
	RW:	•		•		-	-	-			AT,				-		ES.	
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											999-				W 1			
									1	WO 1	999-1	υS33	88	,	w 1:	9990	217	

OTHER SOURCE(S): MARPAT 131:199620

GI

AΒ Indole derivs. (I), (II), and (III) [where A = CH2 or CH2CH2; B = (CH2)n, (CH2O)n, (CH2S)n, (OCH2)n, (SCH2)n, (CH=CH)n, (C.tplbond.C)n, CON(R6), N(R6)CO, O, S, or N(R6); R1 and R5 = independently H, OH, halogen, CN, NO2, C1-5 alkyl, alkenyl, alkynyl, or (un) substituted aryl, etc.; R2 and R3 = independently H, CO2H, COR5, CONR5R6, (CH2)nW(CH2)mZR5, (CH2)nWR5, ZR5, C1-10 alkyl, alkenyl, or substituted aryl; R4 = H, OH, OR6, SR6, CN, COR6, NHR6, CO2H, COR6R7, NO2, (un) substituted sulfamidocarbonyl, C1-5 alkyl, alkenyl, or substituted aryl; R6, R7 = H, C1-5 alkyl, alkenyl, alkynyl, or (un) substituted aryl; W = O, S, CH2, CH=CH, C.tplbond.C, or N(R6); X = O, S, N(R6); Z = CH2, O, S, N(R6), CO, CON(R6), N(R6)CO; m and n = independently 0-4 and pharmaceutically acceptable salts thereof, were prepared Thus, 2,4-thiazolidinedione and K2CO3 followed by NaOH were added to 5-(benzyloxyl)-1-(4-{[3,5-bis(trifluoromethyl)phenoxy]methyl}benzyl)-1Hindole-2-carboxaldehyde in EtOH to form the 2,4-thiazolidinedion-4-ylidene derivative The ylidene was dissolved in a solution of DMF and NaH, reacted with an alkyl ester of 4-(bromomethyl)benzoic acid, and deesterified with HF to yield the acid, (E)-(IV). The title compds. are useful as phospholipase enzyme inhibitors, especially cytosolic phospholipase A2 (cPLA2), for treatment of inflammatory conditions, particularly where inhibition of production of prostaglandins, leukotrienes, and PAF are all desired. Eighty-seven compds. of the invention were tested for phospholipase enzyme inhibiting activity in the LysoPC and/or Coumarine assay. IC50 values ranged from 0.081  $\mu M$  to >50  $\mu M$  for the LysoPC assay and from 2.5  $\mu M$  to >64 μM for the Coumarine assay. Selected compds. were tested for in vivo activity in the carrageenan-induced rat paw edema test, and showed 4.2% to 34.2% inhibition. Forty-eight compds. of the invention were tested for cPLA2 enzyme activity, and exhibited 25% to 95% inhibition at concns. of 3  $\mu M$  to 100  $\mu M$ . IC ICM C07D417-06 ICS A61K031-40; C07D409-04; C07D401-12; C07D403-04; C07D209-22; C07D209-12; C07D209-10; C07D401-06; C07D209-42; C07D209-14; C07D403-06; C07D405-04; C07D417-10; C07D405-12 CC 27-11 (Heterocyclic Compounds (One Hetero Atom)) Section cross-reference(s): 1, 63 IT 204016-27-3P 204016-28-4P 204016-29-5P 204016-30-8P 204016-31-9P 204016-32-0P 204016-33-1P 204016-34-2P 204016-35-3P 204016-36-4P 204016-37-5P 204016-38-6P 204016-39-7P 204016-40-0P 204016-41-1P 204016-42-2P 204016-43-3P 204016-44-4P 204016-45-5P 204016-46-6P 204016-47-7P 204016-48-8P 204016-49-9P 204016-50-2P 204016-51-3P 204016-52-4P 204016-53-5P 204016-54-6P 204016~55-7P 204016-56-8P 204016-57-9P 204016-58-0P 204016-59-1P 204016-60-4P 204016-61-5P 204016-62-6P 204016-63-7P 204016-64-8P 204016-65-9P 204016-66-0P 204016-67-1P 204016-68-2P 204016-69-3P 204016-70-6P 204016-71-7P 204016-72-8P 204016-73-9P 204016-74-0P 204016-75-1P 204016-76-2P 204016-77-3P 204016~78-4P 204016-79-5P 204016-80-8P 204016-81-9P 204016-82-0P 204016-83-1P 204016-84-2P 204016-85-3P 204016-86-4P 204016-87-5P 204016-88-6P 204016-89-7P 204016-90-0P 204016-91-1P 204016-92-2P 204016-93-3P 204016-94-4P 204016-95-5P 204016-96-6P 204016-97-7P 204016-98-8P 204016-99-9P 204017-00-5P 204017-01-6P 204017-02-7P 204017-03-8P 204017-04-9P 204017-05-0P 204017-06-1P 204017-07-2P 204017-08-3P 204017-09-4P 204017-10-7P 204017-11-8P 204017-12-9P 204017-13-0P 241489-40-7P 241489-41-8P 241489-42-9P 241489-43-0P 241489-44-1P 241489-45-2P 241489-46-3P 241489-47-4P 241489-48-5P 241489-49-6P 241489-50-9P . 241489-56-5P 241489-53-2P 241489-58-7P 241489=52-1P 241489-54-3P

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241489-77-0P

241489-65-6P

241489-72**-**5P

241489-78-1P

241489-60-1P

241489-67-8P

241489-74-7P

241489-62-3P

241489-76-9P

241489-69-0P · 241489-70-3P

241489-66-7P

241489-73-6P

241489-79-2P

241489-80-5P 241489-81-6P 241489-82-7P 241489-83-8P 241489-84-9P 241489-85-0P 241489-86-1P 241489-87-2P 241489-88-3P 241489-89-4P 241489-90-7P 241489-91-8P 241489-92-9P 241489-93-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of indole derivs. as phospholipase enzyme inhibitors for treatment of inflammatory conditions)

IT 204016-36-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of indole derivs. as phospholipase enzyme inhibitors for treatment of inflammatory conditions)

RN 204016-36-4 HCAPLUS

CN Benzoic acid, 5-[[[1-[[4-[[2,4-bis(trifluoromethyl)phenoxy]methyl]phenyl]methyl]-5-(phenylmethoxy)-1H-indol-2-yl]carbonyl]amino]-2-[(6-chloro-3-pyridinyl)oxy]- (9CI) (CA INDEX NAME)

$$Ph-CH_2-O$$
 $R$ 
 $CH_2-O$ 
 $CF_3$ 
 $CF_3$ 

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

5

ACCESSION NUMBER:

1998:163566 HCAPLUS

DOCUMENT NUMBER:

128:204806

TITLE:

Preparation of indole derivatives as phospholipase

enzyme inhibitors

INVENTOR(S):

Xiang, Yibin; Bemis, Jean; McKew, John; Kaila, Neelu

PATENT ASSIGNEE(S):

Genetics Institute, Inc., USA

SOURCE:

PCT Int. Appl., 115 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE				
WO 9808818	A1	19980305	WO 1997-US14943	19970826				
W: AL, AM, AT	r, AU, AZ	, BA, BB,	BG, BR, BY, CA, CH, CN	, CU, CZ, DE,				
DK. EE. ES	FI. GB	. GE. GH.	HU. TL. IS. JP. KE. KG	. KP. KR. KZ.				

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LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ,
             VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
             GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
             GN, ML, MR, NE, SN, TD, TG
     CA 2264020
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                                                                     19970826
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                                             AU 1997-40882
                                                                     19970826
     AU 717430
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     EP 922028
                          Α1
                                 19990616
                                             EP 1997-938589
                                                                     19970826
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 2000516958
                          T2
                                 20001219
                                             JP 1998-511798
                                                                     19970826
PRIORITY APPLN. INFO.:
                                             US 1996-703115
                                                                 Α
                                                                     19960826
                                             WO 1997-US14943
                                                                 W
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OTHER SOURCE(S):

MARPAT 128:204806

GΙ

$$R^{1}$$
 $N_{R^{3}}$ 
 $R^{2}$ 
 $R^{2}$ 
 $R^{3}$ 

$$R^{1}$$
 $N$ 
 $R^{3}$ 
 $R$ 
 $R$ 
 $R$ 
 $R$ 
 $R$ 
 $R$ 

Title compds. I, II, III ( A is independent of any other group and is AB selected from the group consisting of -CH2- and -CH2-CH2-; B is independent of any other group and is selected from the group consisting of -(CH2)n-, -(CH2O)n-, -(CH2S)n-, -(OCH2)n-, -(SCH2)n-, -(CH=CH)n-, -(C.tplbond.C)n-, -CON(R6)-, -N(R6)CO-, -O-, -S- and -N(R6)-; R2 isindependent of any other R group and is selected from the group consisting of -H, -COOH, -COR5, -CONR5R6, -(CH2)n-W-(CH2)m-Z-R5, -(CH2)n-W-R5, -Z-R5, C1-C10 alkyl, alkenyl and substituted aryl; R3 is independent of any other R group and is selected from the group consisting of -H, -COOH, -COR5, -CONR5R6, -(CH2)n-W-(CH2)m-Z-R5, -(CH2)n-W-R5, -Z-R5 wherein:, C1-C10 alkyl, alkenyl and substituted aryl) and a pharmaceutically acceptable salt thereof; which inhibit the activity of phospholipase enzymes, particularly cytosolic phospholipase A2 were prepared Pharmaceutical compns. comprising such compds. and methods of treatment using such compns. are also disclosed.

IC ICM C07D209-12

ICS A61K031-40; C07D209-42; C07D401-12; C07D209-10; C07D405-12

CC 27-11 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 1, 63 IT 204016-27-3P 204016-28-4P 204016-29-5P 204016-30-8P 204016-31-9P 204016-32-0P 204016-33-1P 204016-34-2P 204016-35-3P 204016-36-4P 204016-37-5P 204016-38-6P 204016-39-7P 204016-40-0P 204016-41-1P 204016-42-2P 204016-43-3P 204016-44-4P 204016-45-5P 204016-46-6P 204016-47-7P 204016-48-8P 204016-49-9P 204016-50-2P 204016-51-3P 204016-52-4P 204016-53-5P 204016-54-6P 204016-55-7P 204016-56-8P 204016-57-9P 204016-58-0P 204016-59-1P 204016-60-4P 204016-61-5P 204016-62-6P 204016-63-7P 204016-64-8P 204016-65-9P 204016-66-0P 204016-67-1P 204016-68-2P 204016-69-3P 204016-70-6P 204016-71-7P 204016-72-8P 204016-73-9P 204016-74-0P 204016-76-2P 204016-77-3P 204016-75-1P 204016-78-4P 204016-79-5P 204016-80-8P 204016-81-9P 204016-82-0P 204016-83-1P 204016-84-2P 204016-85-3P 204016-86-4P 204016-87-5P 204016-88-6P 204016-89-7P 204016-90-0P 204016-91-1P 204016-92-2P 204016-93-3P 204016-94-4P 204016-95-5P 204016-96-6P 204016-97-7P 204016-98-8P 204016-99-9P 204017-00-5P 204017-01-6P 204017-02-7P 204017-03-8P 204017-04-9P 204017-09-4P 204017-05-0P 204017-06-1P 204017-07-2P 204017-08-3P 204017-10-7P 204017-11-8P 204017-12-9P 204017-13-0P RL: BAC (Biological activity or effector, except adverse); BSU (Biological

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of indole derivs, as phospholipase enzyme inhibitors) 204016-36-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of indole derivs. as phospholipase enzyme inhibitors) 204016-36-4 HCAPLUS

Benzoic acid, 5-[[[1-[[4-[[2,4-bis(trifluoromethyl)phenoxy]methyl]phenyl]methyl]-5-(phenylmethoxy)-1H-indol-2-yl]carbonyl]amino]-2-[(6-chloro-3-pyridinyl)oxy]- (9CI) (CA INDEX NAME)

$$Ph-CH_2-O$$
 $N-CH_2$ 
 $CF_3$ 
 $CF_3$ 

REFERENCE COUNT:

IT

RN

CN

1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:317204 HCAPLUS

DOCUMENT NUMBER: 122:187904

TITLE:

(Halogenomethyl)phenyl  $\alpha\text{-D-glucopyranosides}$  as enzyme-activated irreversible inhibitors of yeast

 $\alpha$ -glucosidase and potential anti-HIV agents

AUTHOR(S): Briggs, Josie C.; Haines, Alan H.; Taylor, Richard J.

Κ.

CORPORATE SOURCE: School Chem. Sciences, Univ. East Anglia, Norwich, NR4

7TJ, UK

SOURCE: Journal of the Chemical Society, Perkin Transactions

1: Organic and Bio-Organic Chemistry (1995), (1),

27-32

CODEN: JCPRB4; ISSN: 0300-922X

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal LANGUAGE: English

GI

AB A range of (halogenomethyl)phenyl  $\alpha$ -D-glucopyranosides I (R1 = CH2Cl, CH2F, R2 = R3 = H; R1 = R3 = H, R2 = N02, CH2Cl; R1 = CHCl2, CH2Cl, R2 = N02, R3 = H), prepared from corresponding methylphenyl glucosides by synthetic manipulation of the aglycon moiety, have been investigated as enzyme-activated irreversible inhibitors of yeast  $\alpha$ -glucosidase and their anti-HIV activity measured. Compds. I, which also contain a 4- and 6-nitro group in the Ph ring of the aglycon, are much more effective inhibitors of the enzyme than are compds. which lack this feature.

CC 33-3 (Carbohydrates)

Section cross-reference(s): 1, 7

IT 143836-10-6P 143836-15-1P 161767-40-4P 161767-41-5P

**161767-42-6P** 161767-43-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(halomethylphenyl adglucopyranosides as enzyme-activated
irreversible inhibitors of yeast aglucosidase and potential anti-HIV
agents)

IT 32742-30-6P 78617-45-5P 143836-11-7P 143836-12-8P 143836-13-9P

161767-44-8P 161767-45-9P 161767-46-0P 161767-47-1P 161767-48-2P

161767-49-3P 161767-50-6P **161767-51-7P** 161767-52-8P

161767-53-9P 161767-54-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(halomethylphenyl adglucopyranosides as enzyme-activated
irreversible inhibitors of yeast aglucosidase and potential anti-HIV
agents)

IT 161767-42-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(halomethylphenyl adqlucopyranosides as enzyme-activated

irreversible inhibitors of yeast aglucosidase and potential anti-HIV agents)

RN 161767-42-6 HCAPLUS

CN  $\alpha$ -D-Glucopyranoside, 2-(dichloromethyl)-4-nitrophenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

IT 161767-51-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(halomethylphenyl adglucopyranosides as enzyme-activated

irreversible inhibitors of yeast aglucosidase and potential anti-HIV agents)

RN 161767-51-7 HCAPLUS

CN  $\alpha$ -D-Glucopyranoside, 2-(dibromomethyl)-4-nitrophenyl, 2,3,4,6-tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L46 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1985:91923 HCAPLUS

DOCUMENT NUMBER:

102:91923

TITLE:

Use of physicochemical parameters in distance geometry

and related three-dimensional quantitative

structure-activity relationships: A demonstration using Escherichia coli dihydrofolate reductase

inhibitors

AUTHOR (S):

Ghose, Arup K.; Crippen, Gordon M.

CORPORATE SOURCE:

Dep. Chem., Texas A and M Univ., College Station, TX,

77843, USA

SOURCE:

LANGUAGE:

Journal of Medicinal Chemistry (1985), 28(3), 333-46

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE:

Journal English

AB A method for using physicochem. parameters in distance geometry or comparable 3-dimensional QSAR is described. A 3-dimensional receptor model for E. coli dihydrofolate reductase was developed from inhibition data of 25 pyrimidines and 14 triazines. The model successfully predicted the binding sites of 5 pyrimidines and 5 triazines. The greatest advantage of the method is that x-ray data and 3-dimensional mole graphics.

advantage of the method is that x-ray data and 3-dimensional mol. graphics

can be used directly.

CC 7-3 (Enzymes)

Section cross-reference(s): 1

IT 640-02-8 738-70-5 1492-81-5 3977-24-0 4022-58-6 4038-62-4 4653-78-5 5355-16-8 7319-45-1 13344-99-5 13351-02-5 14484-50-5

17711-73-8 17740-28-2 17740-29-3 18588-43-7 20285-70-5 20344-69-8 46726-70-9 49561-94-6 50823-94-4 50823-96-6 59481-28-6 69945-50-2 69945-51-3 69945-52-4 69945-53-5 69945-55-7 69945-56-8 69945-58-0 69945-59-1 71525-05-8 77113-54-3 77113-55-4 77113-56-5 77113-57-6 77113-58-7

94295-02-0 94295-03-1 RL: BIOL (Biological study)

(dihydrofolate reductase inhibition by, enzyme model in relation to)

IT 50823-96-6

RL: BIOL (Biological study)

(dihydrofolate reductase inhibition by, enzyme model in

RN 50823-96-6 HCAPLUS

$$\begin{array}{c|c} \text{CF}_3 \\ \text{CH}_2 \\ \text{NH}_2 \end{array}$$

L46 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1982:115502 HCAPLUS

DOCUMENT NUMBER:

96:115502

TITLE:

A comparison of the inhibitory action of

5-(substituted-benzyl)-2,4-diaminopyrimidines on dihydrofolate reductase from chicken liver with that

from bovine liver

AUTHOR(S):

Li, Ren Li; Hansch, Corwin; Kaufman, Bernard T.

CORPORATE SOURCE: SOURCE:

Dep. Chem., Pomona Coll., Claremont, CA, 91711, USA Journal of Medicinal Chemistry (1982), 25(4), 435-40

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE:

Journal

LANGUAGE:

English

GI

- AB Forty-four 5-(substituted-benzyl)-2,4-diaminopyrimidines I (R = substituted benzyl) were synthesized and tested as inhibitors of chicken and bovine liver dihydrofolate reductase [9002-03-3]. The chicken enzyme is, on the average, about 10 times less easily inhibited than bovine enzyme. Compds. which show the greatest selectivity are I [R = CH2C6H4NHCOMe-4 [69945-53-5], CH2C6H4I-3 [30077-60-2], CH2C6H4O(CH2)3Me [77113-59-8], CH2C6H3(CF3)OMe-3,4 [50823-96-6], and CH2C6H2(OMe)3-3,4,5 [738-70-5]]. The inhibition consts. were used to formulate QSAR for comparative purposes.
- CC 1-3 (Pharmacology)
  Section cross-reference(s): 7, 22, 28